



Zhen Ding Technology  
Holding Limited  
2019 CORPORATE  
SOCIAL RESPONSIBILITY  
REPORT



2019  
CORPORATE SOCIAL  
RESPONSIBILITY REPORT

# About this Report



## I Reporting Period

Zhen Ding Technology Holding Limited has been issuing corporate social responsibility (CSR) reports on an annual basis since 2016. The current issue is the fourth CSR report and covers data for 2019 (January 1 to December 31, 2019). The previous report was issued on June 21, 2019. For information integrity and comparability, a portion of the performance data will be traced back to December 31, 2018 and earlier information.

## I Boundaries and Scope of this Report

The boundaries and scope of this report has included Zhen Ding Technology Holding Limited (hereafter referred to as "ZDT") and its subsidiaries. The regions of operation are Taoyuan, Taiwan and Shenzhen, Huai'an, Qinhuangdao, and Yingkou<sup>(Note)</sup> in Mainland China. The Company's business scale, business activities, and supply chain did not change significantly during the reporting period.

## I Data Collection Process and Method of Measurement

The information and statistical data in this report were sourced from the results of statistical calculations and surveys performed by the Company. Performance data relevant to this report were collected by inviting applicable departments to provide routine management data, education and training, discuss issues and take part in interviews. The data were then compiled in accordance with the requirements of GRI guidelines and indicators to reflect ZDT's performance in economic, social, and environmental aspects. The data for each indicator were collected, measured, and calculated according to local regulations. International standards are used where no local regulations apply. If there are no international standards available then industry or applicable standards are used. Financial data in the financial performance section of this report are partially derived from consolidated financial statements certified by a CPA, and are expressed in New Taiwan Dollars (NTD). Financial information is calculated by using the average exchange rates in 2019 (RMB/NTD=4.4722). If the disclosed quantitative indicator has a special meaning, a note will be added to explain the meaning.

## I Reporting Guidelines and Principles

This report is compiled by following the GRI guidelines issued by The Global Reporting Initiative (GRI) and the core disclosure options in the guidelines. Please refer to the GRI indicators for more information.

## I Independent Limited Assurance

The Company has engaged PwC Taiwan to conduct independent limited assurance on this report in accordance with the Assurance Standard No. 1 "Assurance Engagement of Examinations or Audits of Non-Historical Financial Information" issued by the Accounting Research and Development Foundation of the Republic of China, which is based on the International Standard on Assurance Engagement ISAE 3000. Please see the independent limited assurance in this report.

<sup>\*</sup>Note:

The Company's subsidiary, Avary Holding, has suspended the operation of its wholly-owned Hongqunsheng Precision Electronics (Yingkou) Co., Ltd. on November 27, 2019 and completed the asset disposal and equity transfer process on March 12, 2020.



## I Business Locations

Subsidiary in Mainland China: Avary Holding (Shenzhen) Co., Limited

Address: Songluo Road, Yanchuan Community, Yanluo Street, Bao'an District, Shenzhen, Guangdong Province, China

Telephone: (86)755-3381-0388

Subsidiary in Mainland China: Hong Heng Sheng Electronical Technology (Huai'an) Co., Ltd.

Address: No.168, Fushikang Road, Huai'an Economic and Technological Development Zone, Huai'an, Jiangsu Province, China

Telephone: (86)517-8351-6888

Subsidiary in Mainland China: Qing Ding Precision Electronics (Huai'an) Co., Ltd.

Address: No. 8, Pengding Road, Huai'an Economic and Technological Development Zone, Huai'an, Jiangsu Province, China

Telephone: (86)517-8351-6888

Subsidiary in Mainland China: Yu Ding Precision Electronics (Huai'an) Co., Ltd.

Address: No. 18, Pengding Road, Huai'an Economic and Technological Development Zone, Huai'an, Jiangsu Province, China

Telephone: (86)517-8351-6888

Subsidiary in Mainland China: Qi Ding Technology Qinhuangdao Co., Ltd.

Address: No.18-2, Tengfei Road, Economic and Technological Development Zone, Qinhuangdao, Hebei Province, China

Telephone: (86) 335-713-8888

Subsidiary in Mainland China: Hong Qi Sheng Precision Electronics (Qinhuangdao) Co., Ltd.

Address: No.18, Tengfei Road, Economic and Technological Development Zone, Qinhuangdao, Hebei Province, China

Telephone: (86)335-5308-888

Subsidiary in Mainland China: Hong Qun Sheng Precision Electronics (Yingkou) Co., Ltd.

Address: No.196, XinHai Street, Coastal Industrial Base, Yingkou, Liaoning Province, China

Telephone: (86)417-3286-688

Subsidiary in Mainland China: Kui Sheng Technology (Shenzhen) Co., Ltd.

Address: AVARY Park, Songluo Road, Yanchuan Community, Yanluo Street, Bao'an District, Shenzhen, Guangdong Province, China

Telephone: (86)755-3381-0388

Subsidiary in Taiwan: Zhen Ding Technology Co., Ltd.

Address: No.6, Lane 28, Sanho Road, Sanshi Village, Dayuan District, Taoyuan City, Taiwan, 33754 R.O.C.

Telephone: (886)3-383-5678



## I Contact Information

Zhen Ding Technology Holding Limited

Address: No.6, Lane 28, Sanho Road, Sanshi Village, Dayuan District, Taoyuan City, Taiwan, R.O.C.

Telephone: (886) 3-383-5678 ext. 3801

Contact: Duen Ling, Senior Manager of Spokesperson & Investor Relations Division

Company website: [www.zdtco.com](http://www.zdtco.com)

<sup>\*</sup>Note:

The Company's subsidiary, Avary Holding, has suspended the operation of its wholly-owned Hongqunsheng Precision Electronics (Yingkou) Co., Ltd. on November 27, 2019 and completed the asset disposal and equity transfer process on March 12, 2020.

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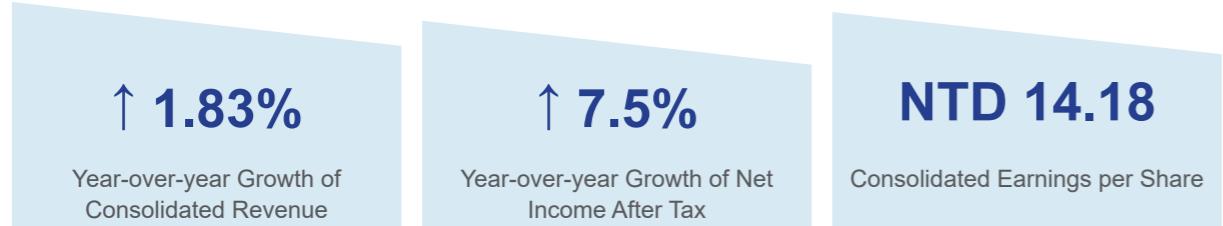
## Message from the Chairman

The US–China trade war has consistently remained unchanged since 2018. Looking back on 2019, the global economy is once again plunged into many risks and uncertainties, exposing the electronics industry to enormous pressure and challenges. The Company leveraged its advantages in production capacity, quality, and technology development. While providing customers with excellent products and services, we remain fully committed to expanding our new customer base. In addition to fortifying cooperation with numerous renowned vendors around the world to access their new product lines, we research and develop products that feature the properties of light-weight, thin, short, small, high-frequency, high speed, low pollution, low loss, low power consumption, multi-functional, precision (low tolerance), beauty (aesthetically appealing), refinement, and intelligence. We keep abreast of current trends and development for electronic products related to 5G, Internet of Things, Internet of Vehicles, Industrial Internet of Things, and artificial intelligence, as well as constantly promote research, development, and deployment in the field of automotive electronics, enabling the Company to steadily increase its revenues and profits in 2019.

The Company's 2019 business overview and 2020 future outlook are as follows:

### 2019 Business Overview

#### I. Financial Results



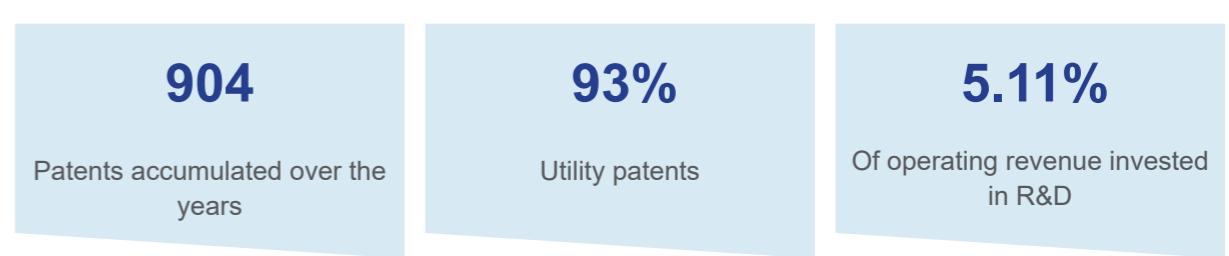
The Company's consolidated revenue for 2019 was NTD120,067,508 thousand, an increase of 1.83% compared to previous year.

Net income for 2019 was NTD12,401,617 thousand (net income attributable to the parent company was NTD 8,685,202 thousand), an increase of 7.5% from previous year.

The consolidated earnings per share (EPS) for 2019 was NTD 14.18 (consolidated EPS attributable to the parent company was NTD 9.93)

In facing the risks of a declining macro economy in the overall environment, the Company continues to strengthen control over financial risks by conducting reviews and adjustments as needed to increase its capital efficiency and to secure adequate cash flow. As of the end of 2019, the Company's debt ratio was 35%, surpassing market level in the industry. Capital abundance lays a firm foundation for the company's future development and response to various types of risks and changes.

#### II. Technology Development



The Company is devoted to developing new materials, new products, new manufacturing processes, new equipment, and new technologies, closely cooperates with world-class clients to keep abreast of technological development trends, and continues to develop 5G, AI, Internet of Things, and Internet of Vehicles applications to secure the Company's technology leadership in the industry. In 2019, Zhen Ding has invested NT\$6.1 billion in R&D, which accounts for 5.11% of its operating revenues. We accumulated 117 patents in 2019: 53 from Mainland China, 40 from Taiwan, and 24 from the United States. As of the end of 2019, the Company has accumulated 904 patents: 363 from Mainland China, 395 from Taiwan, and 146 from the United States; 93% of these are utility patents.

To cultivate professional talents and enhance technological development, the Company engages in research projects with 18 reputable universities and 2 research institutes in Greater China to accelerate and facilitate the implementation of core technology research results through cooperation with scientific research institutes. By joining forces with experts and professors of prestigious universities and institutes in Greater China, we successfully hosted the first electronic circuit technology forum, during which next-generation technologies for the electronic industry were discussed, reviewed, and planned.

#### III. Organic and Inorganic Growth

To strengthen corporate development, the Company continues to invest in the major investment projects, including the capacity expansion in Huai'an and Qinhuangdao. Specifically, the Phase 2 construction of Huai'an Industrial Park, the SLP production line expansion of Qinhuangdao, and the Phase 1 construction of Shenzhen Plant 2 have been completed and ramped up production. Meanwhile, the Company accelerates investments for overseas expansion. We have established a subsidiary in India and completed the recruitment and training of local employees. The production line in India is expected to commence operation in 2020. To increase the company's overall asset management efficiency and enhance business synergy, we closed our Yinkou manufacturing site at the end of 2019, thereby optimizing and integrating the resources and collaboration network within the Company's manufacturing sites.

Through market analysis and research for integrating the vertical and horizontal aspects of an industry, the Company actively expands its up/downstream industry chains through diverse investment channels and cooperation with professional institutions to constantly bolster and improve the company's comprehensive competitiveness in the PCB industry.

#### IV. Increasing the level of automation to build a smart factory for Industry 4.0

In recent years, the Company has comprehensively increased its use of automated, smart, and intelligent applications to achieve the goals of a smart factory for Industry 4.0. We invested in a project in 2019 to expand the SLP production lines of the Qinhuangdao site. Through this project, the first lights-out factory using advanced production processes was achieved. While transitioning to automated manufacturing, the Company built a complete IT management system, realizing the use of smart applications to track and trace products in the manufacturing process and product quality. At the same time, we introduced a big data process expert system, which is used for the production of semiconductors, to the production process. This system effectively improves manufacturing efficiency and product quality. In future, we will continue to promote AI applications and machine learning to transform the Company into a smart factory.

## 2020 Outlook

The US–China trade war that has continued to this day has finally entered the phase one trade agreement at the beginning of 2020. However, the COVID-19 outbreak has plunged businesses around the world into chaos, including disruption to industry supply chain, suspension of production activities, shortage of raw material supply, reduced consumption behavior, and imbalance between supply and demand for daily necessities, resulting in a global economic recession that is worse than the financial crisis. To prepare for the potential risks of a downward global economy due to the pandemics, the Company has not only stepped up its epidemic prevention efforts to ensure employee health, but also paid attention to its stability for production capacity and quality control. We uphold the “One ZDT” (one-stop shopping service) principle, flexibly adjust investment and product manufacturing strategies according to market conditions, maintain a stable financial plan, and focus on developing high-end products and technologies, all in an effort to actively promote long-term cooperation with strategic partners, collaborate in the development of new materials, new equipment, and new technologies required for specialized manufacturing processes, and ensure that we make progress and stay on schedule to achieve the goal of building a smart factory for Industry 4.0. In addition to providing customers with leading technologies and premium quality, the Company also reinforces its resource pooling with strategic partners to co-develop new breakthroughs of high-quality industrial technologies. In response to macroeconomic changes, we will continue to pursue the world-leading technology and market position.

With the commitment to ZDT's business strategy -- “stable growth, structural adjustments, innovation promotion, and risk management”, the Company will continue to optimize production capacity and ensure the robustness of each of our product line. To serve with corporate social responsibility, we are dedicated to environment protection and responding to risks of climate change. The Company's continuous innovations in advanced technologies and high-performing, cost-effective materials are leading industry advancement and strengthening our core competence. ZDT is paving the way to sustained growth together with our strategic partners, and striving to achieve the Company's mission of “developing technologies for the betterment of human beings and protecting the environment for a greener earth.”

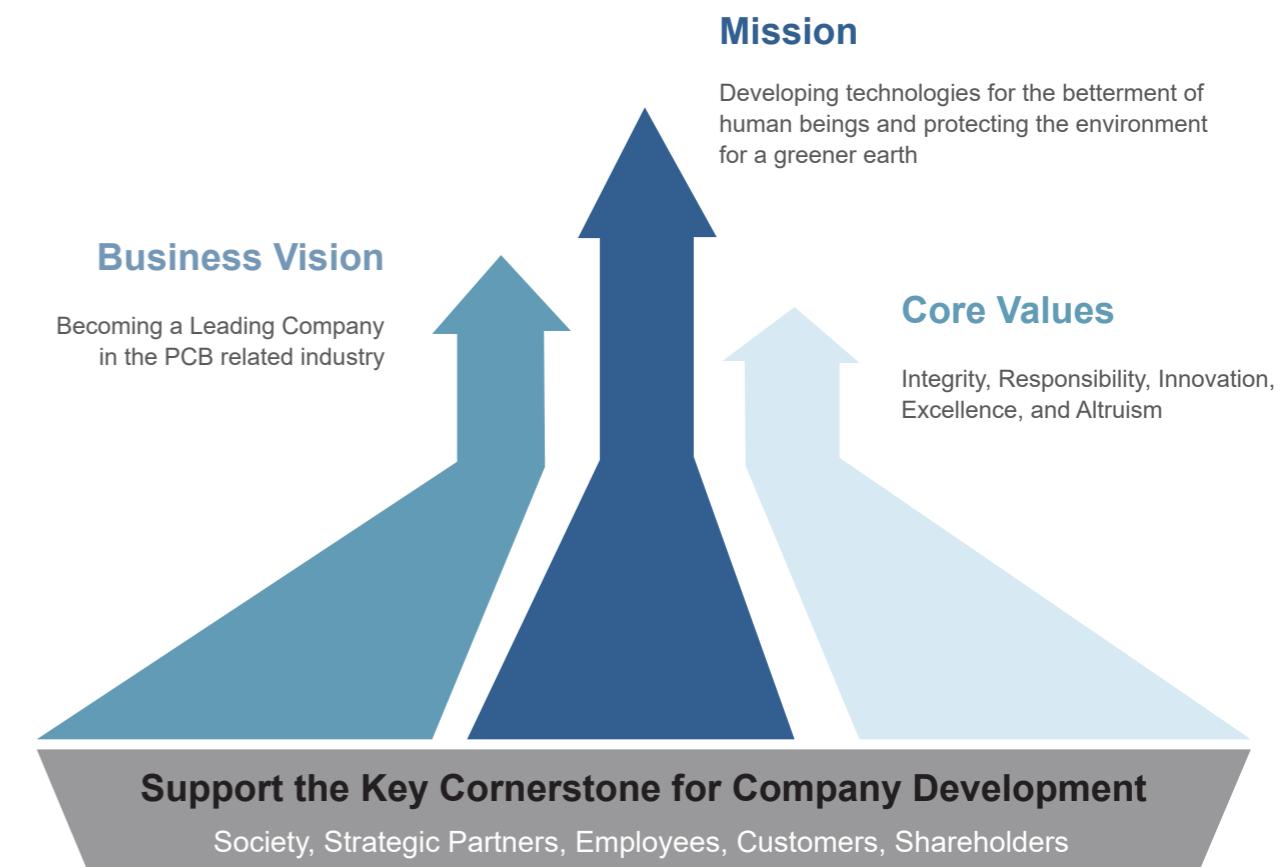
Chairman

沈慶芳

## The Cornerstone of ZDT's Corporate Social Responsibility

“Integrity, Responsibility, Innovation, Excellence, and Altruism” are the core values of ZDT and also the cornerstone of our corporate culture. We invariably believe that people form the foundation of a company and that we must create an excellent enterprise to achieve the company's vision of becoming a leading company in the PCB related industry. Our first task should involve placing high value on the ethical value of employees to encourage them to assume responsibilities and practice this belief in life, thereby exerting a positive influence on their family and eventually on the entire society.

ZDT realizes that the existence of a company is not merely about making profits; it has a more profound meaning. Like people, companies have souls; their existence on earth has its reason and mission: to fulfill their social responsibilities while they seek business profit and prosperity. Therefore, our corporate mission is “developing technologies for the betterment of human beings and protecting the environment for a greener earth.” With this cornerstone, we realize our commitment to CSR and create the value of sustainable development for the economy, society, and environment.



# 2019 CSR Performance



## Largest in the World

The largest PCB manufacturer in the world



## NTD 4,024 million

Cash dividends distributed to shareholders totaled NTD 4,024 million in 2019



## 5.1%

R&D expense amounted to NTD 6,410 million in 2019, equivalent to 5.1% of operating revenue.

## 904 Patents

As of the end of 2019, 904 patents were obtained worldwide, 93% of which were utility patents.

## NTD 643 million

Expenditure and investments for environmental protection totaled NTD 643 million in 2019

## 51.7%

Volume of recycled water increased by 51.7% in 2019 compared to previous year, raising recycling rate to 49.1%

## 93.8%

93.8% of waste resources were recycled in 2019, exceeding 90% over the years

## 36,181 people

36,181 employees as of the end of 2019  
31.5% were women

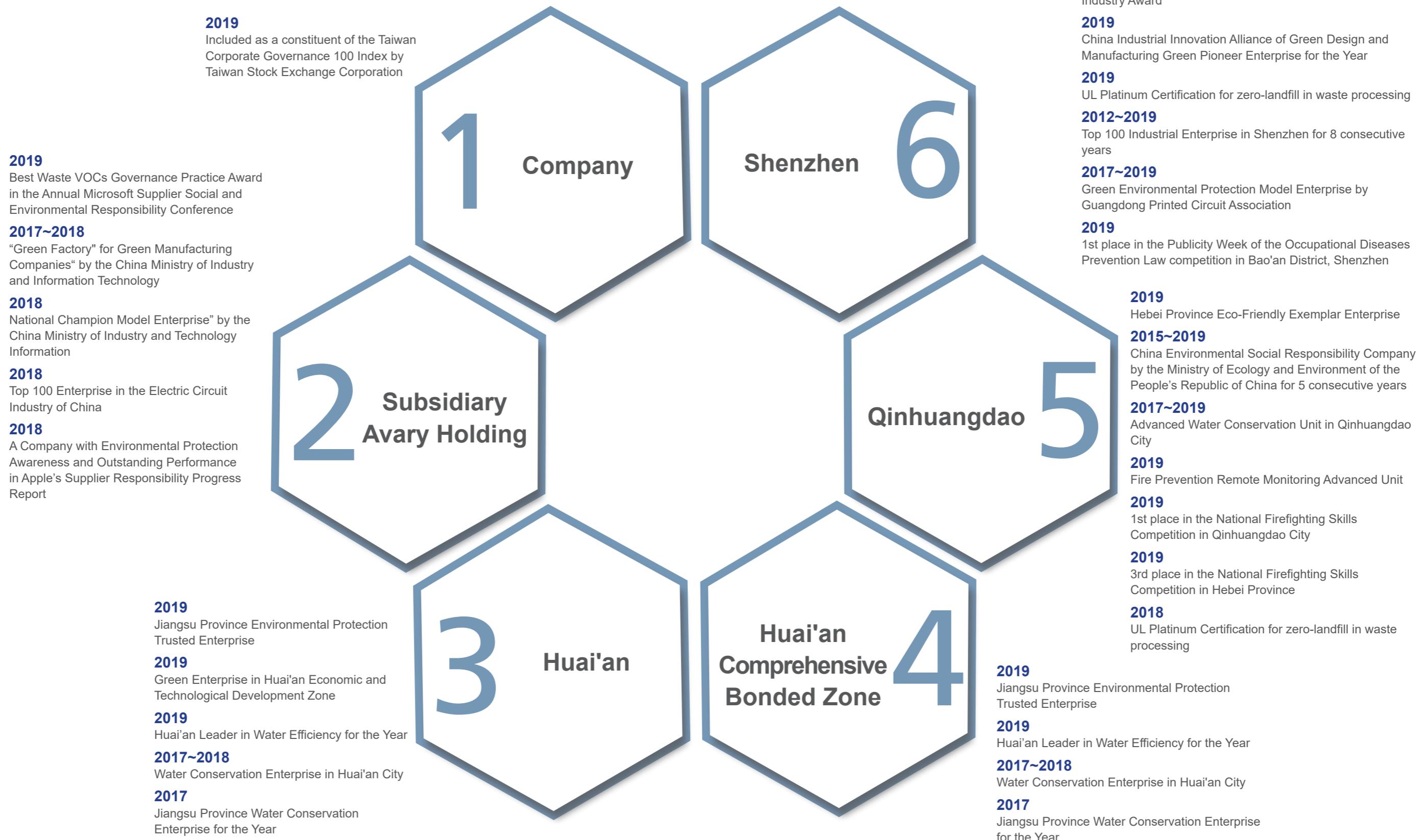
## 0 Incident

0 major injuries and occupational diseases in 2019

## 470,000 Participants

3,331 charity events were organized in 2019 and participated by 470,000 volunteers.





# Stakeholder Communications and Material Issues

In the beginning of 2016, we decided to conduct a comprehensive inventory of the CSR activities that we have engaged in since our establishment. Through discussions and performance management internally and externally, we hope to focus our CSR activities on the core business competencies of ZDT. In addition to an inventory of CSR activities held every year, our CSR practices are also incorporated in daily operational management. The Chairman of ZDT's Board of Directors was appointed to act as the convener of CSR meetings, which are held with all departments to identify CSR topics and address the material topics. We hope that by issuing this report and addressing the identified topics, ZDT will be able to prepare for and respond to all types of risks and opportunities and strive further and steadily toward sustainable development.



## Stakeholder Engagement

ZDT uses internal CSR work meetings to discuss and identify stakeholder groups that interact closely with the company and generate significant economic, environmental, and social impact on the company. We reference issues disclosed by other companies and identified eight major stakeholder groups for Zhen Ding based on dependency, responsibility, influence, diverse perspectives, focus, and the Company's actual operations. The major stakeholders are employees, customers, suppliers, contractors, investors, community, government, and banks. Each stakeholder is crucial to the Company and they are the cornerstones for Zhen Ding's sustainable development. We constantly remind ourselves of our goals when we first started and to conduct business with integrity and responsibility.

ZDT has identified and confirmed 13 material topics of concern to stakeholders in 2019 through the following five steps. In compiling this CSR report, we were able to understand the topics and needs of our stakeholders from different perspectives and provide a response accordingly in this report.

### Step 1

#### Identify Relevant Topics

With the assistance of external experts and following discussions internally, we followed the GRI guidelines, considered the overall business environment and risks, industry characteristics, and the main aspects of ZDT's CSR development, and produced a list of 30 topics for 2019 comprising four major aspects of governance, environment, society, and products (Please refer to Page 16 of this report).

### Step 2

#### Identify Topics of Interest to Stakeholders

We gathered department representatives who interact directly with each stakeholder group and conducted questionnaire survey internally to assess the level of concern that the stakeholders have over each topic.

### Step 3

#### Analyze the Degree of Economic, Environmental, and Social Impact

We gathered department representatives corresponding to each stakeholder group and discussed with external experts to analyze the degree of impact that each topic has on the company and the company has on each topic.

### Step 4

#### Rank Material Topics in Order of Priority and Confirm Material Topics

In total, 100 questionnaires were recovered in 2019 and analyzed to determine the level of concern that the stakeholders have over each topic and internally evaluate the degree of impact each topic has on/is affected by economic, environmental, social, and product aspects. Subsequently, weighted arithmetic mean was used to calculate the weight score of each topic and draw up a matrix diagram. After the materiality analysis of CSR topics, applicable departments were asked to verify their completeness. In 2019, 13 material topics were identified (please refer to Page 16 of this report). Subsequently, the scope, boundary and reporting period for each material topic were further assessed to present relevant information and performance data. We also applied the principles of completeness, responsiveness, and inclusivity in the authoring of this report to ensure that important information of interest to stakeholders is disclosed within.

### Step 5

#### Examine and Review CSR Report

Upon the completion of the report, all departments examined and reviewed the report to ensure that CSR information and performance are not inappropriately or improperly presented. Deficiencies identified in the report not only serve as an important reference for next year's report, but are also included in the company's annual management goal and as items to be discussed by each department when formulating strategies.

# 2019 Material Topic Matrix

Stakeholders' Concern Level

High

Wastewater and waste generation	Economic performance
Compliance with environmental protection regulations*	Anti-corruption
Occupational health and safety	Social and economic regulatory compliance*
Forced and coerced labor	Information disclosure and grievance system
Customer satisfaction	Product quality
Basic salary	Compliance with product regulations*
Energy management	Infrastructure investment
Total environmental protection expenditures	Raw materials management
Employee-employer relations	Procurement and supplier management
Labor-management relations	Anti-competition
Customer privacy	Greenhouse gas and air pollution emissions
Training and education	Water resource management
Diversity and equal opportunity	
Human rights policy and assessment	Local community relations
Freedom of association and collective bargaining	

Low

High

## Significant economic, environmental, and social impact

● Economic aspect

● Environmental aspect

● Social aspect

● Product aspect

13 material topics in 2019<sup>(Note)</sup>

# Material Topics Identified in 2019

## Stakeholder Communications and Material Issues

Aspect	Material topics	GRI Topics	Boundary Report		Corresponding chapters/sections
			Internal	External	
Economy	Economic performance	201 Economic performance	✓		1-1 Financial performance
	Anti-corruption	205 Anti-corruption	✓	✓	1-2 Ethical management
	Procurement and supplier management	204 Procurement practices 308 Supplier environmental assessment 414 Supplier social assessment	✓	✓	2-1 Supply chain partnership
	Regulatory compliance	307 Environmental compliance 419 Social and economic regulatory compliance	✓	✓	1-2 Regulatory compliance and anti-improper competitive behavior 3-4 Compliance with environmental regulations 4-1 Comprehensive employee benefit system 4-1 Transparent and uninterrupted grievance channel 5-1 Community impact assessment
	Information disclosure and grievance system	Material topics based on GRI 101 Foundation	✓	✓	Stakeholder Communications and Material Issues
	Anti-competition	206 Anti-competitive behavior	✓	✓	1-2 Regulatory compliance and anti-improper competitive behavior
Environment	Wastewater and waste generation	306 Effluents and waste	✓	✓	3-3 Wastewater discharge management 3-4 Waste management
	Greenhouse gas and air pollution emissions	305 Emissions	✓	✓	3-2 Greenhouse gas emissions 3-2 Energy conservation and carbon reduction plans 3-4 Air pollution control
	Water resource management	303 Water	✓	✓	3-3 Water consumption status 3-3 Water recycling and reduction 3-3 Water resource management and disclosure
Society	Forced and coerced labor	409 Forced or compulsory labor	✓	✓	4-1 Comprehensive employee benefit system 4-1 Transparent and uninterrupted grievance channel
	Occupational health and safety	403 Occupational safety and health	✓		4-1 Healthy and safe environment
Products	Customer satisfaction	Material topics based on GRI 101 Foundation	✓	✓	2-2 Customer service and support
	Product quality	Material topics based on GRI 101 Foundation	✓	✓	2-2 Product quality 2-3 Customer service and support

\*Note:

This report integrated three topics—social and economic regulatory compliance, compliance with product regulations, and compliance with environmental protection regulations—with “Regulatory Compliance” as the single material topic.

# Stakeholder Communication in 2019



## Employees

Safety awareness assessment participation and pass rate= **100%**

Total number of health checks **14,466 people**

Average training hours per person exceeded= **58 Hours**



## Customers

Customer satisfaction survey average= **85.8%**

Total number of quality improvement proposals= **2,585**

**Topics of Concern**

- Occupational health and safety
- Training and education
- Forced and coerced labor
- Employee-employer relations

**Communication channel (frequency)**

- Employee safety training (as needed)
- Safety awareness assessment (quarterly)
- Safety Production Committee (monthly)
- Occupational health check (as needed)
- Occupational hazard factor inspection (annually)
- Safety precaution management project (as needed)
- Emergency response and fire drills
  - (1)Emergency response drills (as needed)
  - (2)Fire drills (semi-annual)

- Safety awareness events (as needed)
- Grievance system for safe issues (as needed)
- Education and training programs for employees (annually)
- SER policy awareness training (as needed)
- Labor-management meetings (quarterly)
- Human resource e-platform (as needed)
- Employee suggestion boxes (as needed)
- Compliant hotline and internal and external contacts via emails (as needed)



## Suppliers

Suppliers who signed the "Supplier's Undertakings"= **100%**

**Topics of Concern**

- Economic performance
- Anti-corruption
- Regulatory compliance
- Wastewater and waste generation

**Communication channel (frequency)**

- Supplier environmental and social responsibility audit (annually)
- Supplier quality and hazardous substance audit (annually)
- Supplier greenhouse gas inventory (annually)
- Supplier education and training (as needed)
- Supplier sunshine policy awareness campaign (quarterly)
- Supplier reporting channel (as needed)



## Contractors

Total number of contractors who participated in safety training and obtained certification=

**Headcount of 6,465 people**

Total number of contractor work coordination weekly meetings held=

**221**

**Topics of Concern**

- Energy management
- Wastewater and waste generation
- Regulatory compliance
- Training and education

**Communication channel (frequency)**

- Contractor safety training (as needed)
- Contractor work coordination weekly meetings (weekly)
- Contractor safety reminder morning meetings (daily)

# Stakeholder Communication in 2019



## Investors

Included as a constituent of  
**TWSE Taiwan Corporate Governance 100 Index**

**Topics of Concern**

- Economic performance
- Information disclosure and grievance system
- Product quality
- Customer satisfaction

### Communication channel (frequency)

- General shareholders' meetings (annually)
- Annual report (annually)
- Financial report (quarterly)
- Market Observation Post System (as needed)
- Website Investor section (as needed)
- Investor conference (as needed)
- Domestic and overseas investment forums (as needed)
- Domestic and overseas investor face-to-face meetings or conference calls (as needed)
- Investor e-mail (as needed)



## Communities

Total expenditure for environmental protection=

**NTD 643 million**

Total number of participants in the Environmental Protection Month events=

**36,220 people**

### Topics of Concern

- Wastewater and waste generation
- Regulatory compliance
- Water resource management
- Greenhouse gas and air pollution emissions

### Communication channel (frequency)

- Organize Environmental Protection Month events (annually)
- Participate in local environmental awareness activities (as needed)
- Voluntary monitoring of water quality around manufacturing sites (periodically)
- Contact mailbox on website (as needed)
- Corporate charity and volunteer activities (as needed)



## Government

TWSE Corporate Governance Evaluation score=

**89.4 points**

Rank by public listed company=

**6 % ~20%**

### Topics of Concern

- Regulatory compliance
- Economic performance
- Wastewater and waste generation
- Information disclosure and grievance system

### Communication channel (frequency)

- Market Observation Post System (as needed)
- Contact mailbox on website (as needed)
- Forum/ Seminar/ Orientation/ Fraternity (as needed)
- Industry Association Activities (as needed)
- Official document (as needed)



## Banks

Company's debt ratio as of the end of 2019=

**35%**

### Topics of Concern

- Economic performance
- Anti-corruption
- Regulatory compliance
- Information disclosure and grievance system

### Communication channel (frequency)

- Contact mailbox on website (as needed)
- Contracts and correspondence (as needed)

# 1

## Ethical Management & Corporate Responsibility



### Key Achievements

Record-High Consolidated Revenue for 2019

**NTD 120,068 million**

Record-High Consolidated Net Income for 2019

**NTD 12,402 million**

Corporate Governance Evaluation Score for 2019

**89.4 points**

Rank by public listed company: 6%-20%

# 1-1 Company Overview



## Zhen Ding Technology Holding Limited Stock Code: 4958-KY

Chairman	Chang-Fang Shen
Address of Headquarters	No.6, Lane 28, Sanho Road, Sanshi Village, Dayuan District, Taoyuan City, Taiwan, R.O.C.
Business Locations <sup>(Note)</sup>	Taoyuan, Shenzhen, Huai'an, Qinhuangdao, India
Products for Sale	PCB, semiconductor IC substrate
Sales Market	America, Europe, Asia (Mainland China, Japan, etc.)
2019 Sales Volume	4,284,634 KPCS
2019 Net Sales	NTD 120,068 million
2019 Paid-in Capital	NTD 9,022 million
2019 Total Employees	36,181 people

Zhen Ding Technology Holding Limited has its main investment in manufacturing companies includes Avary Holding (Shenzhen) Co., Ltd., which is officially listed on the Shenzhen Stock Exchange on September 18, 2018 (stock symbol: 002938.SZ) and Qiding Technology Qinhuangdao Co., Ltd. Avary Holding is located in Shenzhen, Huai'an, Qinhuangdao, India, etc., mainly produces PCB products and Qiding Technology is located in Qinhuangdao, mainly produces semiconductor-related products. Products are widely used in computing, consumer electronics, communication, networking, automotive, and medical sectors.

Under the leadership of Chairman Chang-Fang Shen, ZDT has a management team with extensive experience. The Company cooperates with world's leading customers and uses advanced technologies to establish a comprehensive manufacturing base with high efficiency and low cost. The aim is to develop an efficient, reasonable, automated, and unmanned modern manufacturing process. According to estimates by Prismark Partners LLC, the Company ranked as the largest PCB manufacturing company in the world in terms of 2019 revenue.

<sup>(Note)</sup>  
Subsidiary Avary Holding has suspended the operation of its wholly-owned Hong Qun Sheng Precision Electronics (Yingkou) Co., Ltd. on November 27, 2019 and completed the asset disposal and equity transfer process on March 12, 2020.

## 1/ Company History and Business Scope

**2006** **June** FOXCONN ADVANCED TECHNOLOGY LIMITED was established in the Cayman Islands. The initial capital was USD 70,000,000.

**October** FOXCONN ADVANCED TECHNOLOGY LIMITED (CAYMAN ISLANDS) acquired 100% of the shares of Hung Sheng Electric Integration Technology Co., Ltd.

**2007** **January** The Company established Hongqunsheng Precision Electronics (Yingkou) Co., Ltd. and Hongqisheng Precision Electronics (Qinhuangdao) Co., Ltd.

**April** The Company acquired MONTEREY PARK FINANCE LIMITED and its shares in Fukui Precision Component (Shenzhen) Co., Ltd.

**October** FOXCONN ADVANCED TECHNOLOGY LIMITED issued 92,500,000 shares at a nominal value of USD 1 per share. The paid-up capital after the capital increase amounted to USD 162,500,000.

The Company acquired LIGHT FLASH INTERNATIONAL LIMITED and its shares in Honghuasheng Precision Electronics (Yantai) Co., Ltd.

**2008** **April** The Company acquired WORLD BRIGHT GROUP LIMITED and its shares in Honghengsheng Electronical Technology (Huai'an) Co., Ltd.

**2009** **October** FOXCONN ADVANCED TECHNOLOGY LIMITED issued 39,500,000 shares at a nominal value of USD 1 per share. The paid-up capital after the capital increase amounted to USD 202,000,000.

**2010** **June** FOXCONN ADVANCED TECHNOLOGY LIMITED applied for guidance from Taiwan Stock Exchange Corporation and planned for IPO in Taiwan.

**October** On October 20, 2010, the shareholders' meeting resolved to convert the nominal value of each share of FOXCONN ADVANCED TECHNOLOGY LIMITED to NTD 10 and the paid-up capital became NTD 6,464,000,000.



2011	February	The Investment Commission of the Ministry of Economic Affairs approved the sales of Honghuasheng Precision Electronics (Yantai) Co., Ltd.
	June	The shareholders' meeting resolved to rename "FOXCONN ADVANCED TECHNOLOGY LIMITED" to ZHEN DING TECHNOLOGY HOLDING LIMITED. The Company performed a reelection of all directors and elected 7 directors including 3 independent directors. The Company also established an audit committee and a remuneration committee.
	December	The Company was listed on the Taiwan Stock Exchange and the paid-up capital increased to NTD 6,699,290,000.
2012	May	The Company was ranked 82nd in the 2011 Top 1000 manufacturing companies by CommonWealth Magazine.
	June	The Company issued the first overseas unsecured convertible bonds valued at USD 188 million and it was listed on the Singapore Stock Exchange.
	September	The Company converted earned surplus into capital increase with 33,496,450 shares and the paid-up capital increased to NTD 7,034,254,500.
2013	May	The Company was ranked 639th in the 2012 "Top 1000 companies in greater China" by Business Today.
	September	The Company converted earned surplus into capital increase with 35,171,272 shares and the paid-up capital increased to NTD 7,385,967,220.
	November	The Board of Directors resolved to acquire FOREVER GROWTH INVESTMENTS LIMITED and its shares in Fubo Industry (Shenzhen) Co., Ltd.
2014	April	The Company was ranked 555th among the 2013 "Top 1000 companies in greater China" by Business Today.
	May	The Company was ranked 23rd in operational performance, 38th in net income, and 52nd in revenue among the 2013 Top 1000 manufacturing companies by CommonWealth Magazine.
	June	The Company issued the second overseas unsecured convertible bonds valued at USD 300 million and it was listed on the Singapore Stock Exchange.
2015	August	The Company converted its first overseas convertible bonds into 34,343 shares and the paid-up capital increased to NTD 7,386,310,650.
	November	The Company's first overseas convertible bonds were listed in Taiwan.
	March	The Company converted its first overseas convertible bonds into 29,137,036 shares and the paid-up capital increased to NTD 7,677,681,010.
2016	May	The Company was ranked 4th in operational performance of electronic industry, 30th in net income, and 43rd in revenue among the 2015 Top 2000 manufacturing companies by CommonWealth Magazine.
	December	The subsidiary company Fukui Precision Component (Shenzhen) Co., Ltd. exchanged shares for the acquisition of Hong Qi Sheng Precision Electronics (Qinhuangdao) Co., Ltd., Hongqunsheng Precision Electronics (Yingkou) Co., Ltd., Qingding Precision Electronics (Huai'an) Co., Ltd., and Yuding Precision Electronics (Huai'an) Co., Ltd.; It also used cash to acquire Fubo Industry (Shenzhen) Co., Ltd. and Honghengsheng Electronical Technology (Huai'an) Co., Ltd. to complete shareholding reorganization.
	2017	
2017	May	The Company's Board of Directors passed the reorganization of the subsidiary company Fukui Precision Component (Shenzhen) Co., Ltd. and officially renamed to Avary Holding (Shenzhen) Co., Ltd.
	May	The Company was ranked 4th in operational performance of electronic industry, 57th in net income, 42nd in revenue, and top 100 in revenue growth rate, among the 2016 Top 2000 manufacturing companies by CommonWealth Magazine.
	2018	
2018	May	The Company was ranked 4th in operational performance of electronic industry, 52nd in net income, 35th in revenue, and top 100 in revenue growth rate, among the 2017 Top 2000 manufacturing companies by CommonWealth Magazine.
	September	China Securities Regulatory Commission approved the listing of the subsidiary company Avary Holding (Shenzhen) Co., Ltd. on Shenzhen A-Share.
	2019	
2019	March	The second overseas convertible bonds converted 801,313 shares and the paid-up capital increased to NTD 8,055,496,720.
	April	The second overseas convertible bonds converted 96,680,215 shares and the paid-up capital increased to NTD 9,022,298,870.
	May	The Company was ranked 4th in operational performance of electronic industry, 38th in net income, and 39th in revenue among the 2018 Top 2000 manufacturing companies by CommonWealth Magazine.
2019	November	The operation suspension of its wholly-owned subsidiary, Hongqunsheng Precision Electronics (Yingkou) Co., Ltd.
	ZDT's Business Scope	
		The main function of PCB is to connect various electronic components to form connections between predetermined circuits and provide transmission functions. PCBs are key components in the assembly of electronic components. They provide electrical connections for electronic components and are responsible for the transmission of digital and analog signals, power supply, and sending and receiving radio frequency and microwave signals for electronic devices. They are necessary equipment for most electronic devices and products and they are therefore referred to as the "mother of electronic products". 5G, Internet of Things, Internet of Vehicles, Industrial Internet of Things, and Artificial Intelligence are leading current trends and development for electronic products, while the development of PCBs is advancing toward properties of light, thin, short, small, high, low, multiple, fast, precise, aesthetic, fine and smart. Product applications include but not limited to consumer electronics such as smartphones, smart watches, communication electronics, tablet computers, new energy vehicles, base stations, cloud servers, wireless communications, and smart home and smart city hardware products.

## 2/ Corporate Culture and Business Philosophy

**The Corporate Culture of ZDT:**

A culture in which we do not engage in things that render sleepless nights, we work hard and diligently, we take responsibility, we work and share resources as a team, and we gain if we contribute.

We believe that the value of our existence not only requires considerations for revenue growth and profits, but also aims to sustain operations, seek innovation, and pursue changes in order to maintain the core competitiveness of an enterprise. Therefore, in 2006, the Chairman of the Board of Directors and senior executives have collectively decided to adopt "developing technologies for the betterment of human beings; and protecting the environment for a greener earth" as the mission of ZDT.

Integrity, Responsibility, Innovation, Excellence, and Altruism have inherently been the core value of ZDT. We believe that only through ethical management can we achieve breakthroughs constantly as we pursue for excellence. We encourage every member of ZDT to voluntarily take their own responsibilities and pursue excellence. By making a model example out of our management and raising awareness, we strive to internalize our corporate culture and core value in the day-to-day routines of ZDT.

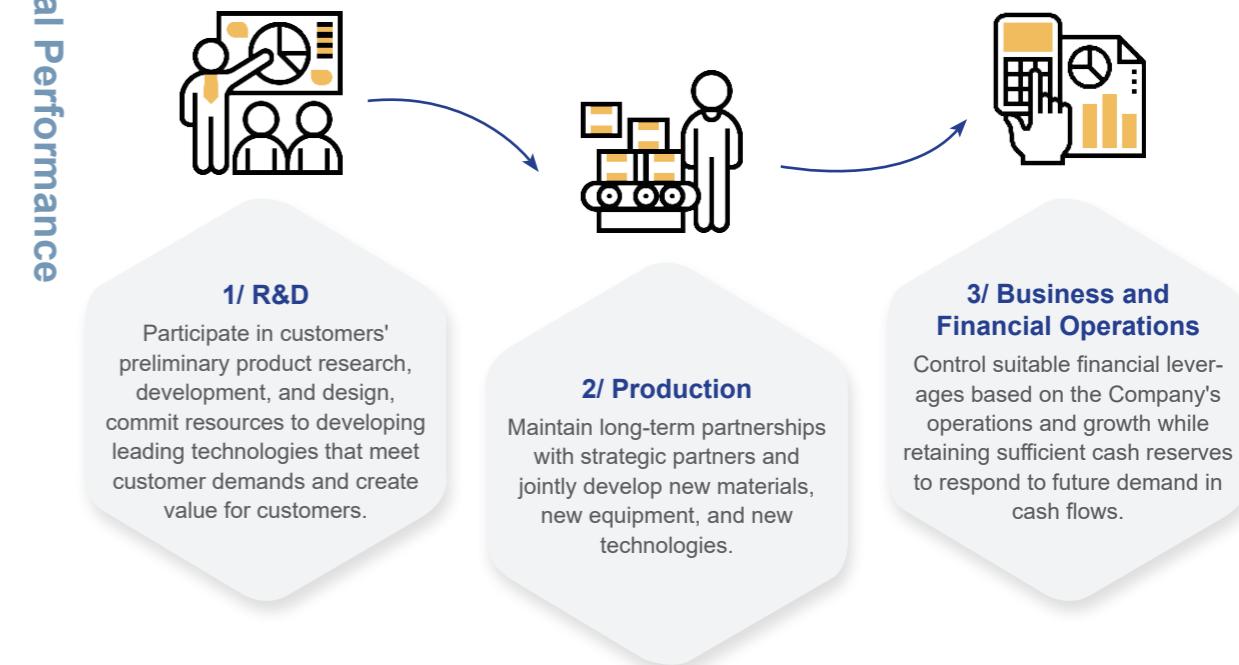
Furthermore, we formulated the "Seven Green" policies and promoted events that revolve around six types of charity activities, with the hope that employees can empathize others and practice this belief at work and in their daily activities. By using the workforce and resources of ZDT in CSR-related activities, we attempt to spread our green corporate culture and the determination to contribute to the society to everyone around us, and work together with them to make the corporate, social and natural environments better.

ZDT is currently the leader of the PCB industry and an industry-leading benchmark with the expertise to provide services in the integration of PCB design, services, manufacturing, and sales. However, we are not complacent as a result of this achievement. In future, we will not only continuously seek growth in terms of "quantity" but also focus on improvements in terms of "quality". We hope to leverage our knowhow and strengths to drive the development of industries relevant to our supply chain. Apart from increasing revenues, ZDT will also improve its profit, technologies, quality, customer service, and employee competency to world-class standards in order to achieve the goal of having the best technology, quality, and corporate culture. Furthermore, ZDT will frequently construct sounder information systems and industrial IoT frameworks, strive to become a smart factor, continuously pay attention to issues relevant to environmental protection and industry safety, uphold the principles of treating our employees, environment, and suppliers properly, and continue to engage in innovation and development as we growth together with our strategic partners.

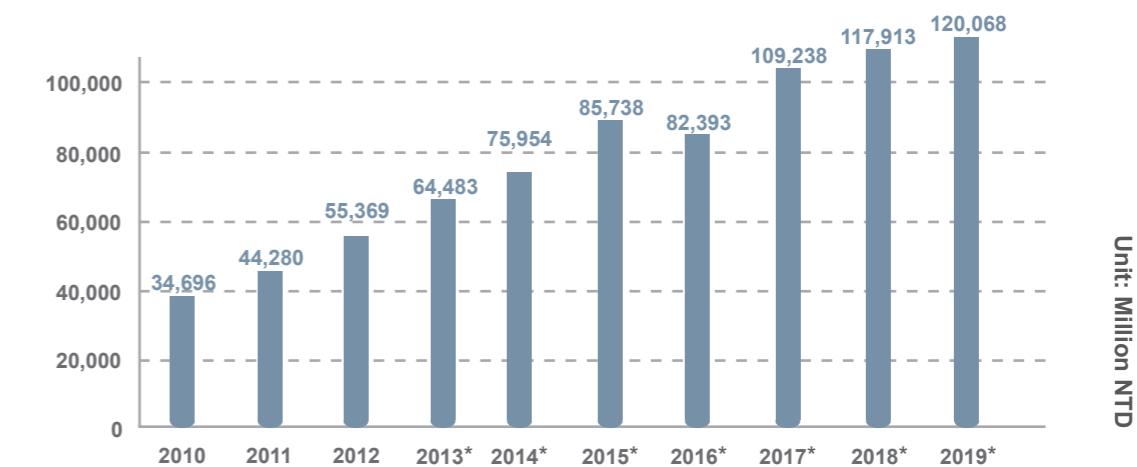
The Company will adhere to the business strategy of "stable growth, restructuring, innovation and risk control" and actively transform. By implementing an IT-based management institution and system, we attempt to accelerate the development of industrial IoT, continue to strengthen the construction of corporate culture, improve employee competency and capabilities, and recruit more talented professionals to join our team to expand the Company's business scope and improve its business quality. With the concerted efforts of our employees, the Company will be able to seize opportunities, create new achievements, jointly maximize benefits for the Company and its shareholders, fulfill corporate social responsibility, and contribute to the society, thereby becoming a professional, responsible, and sustainable corporate citizen.

## 3/ Financial Performance

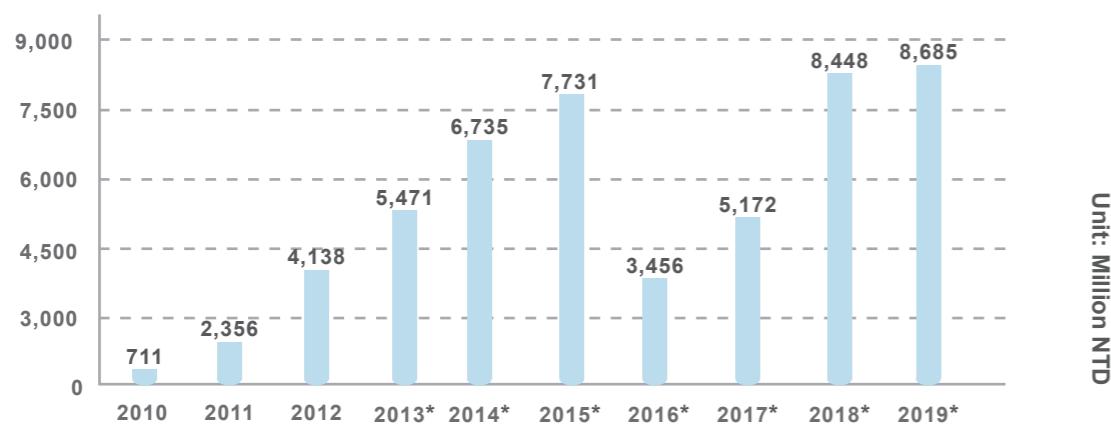
The Company is committed to the comprehensive development of long/short-term strategies and plans based on three major dimensions of research and development, production, and business/financial operations:



The Company's consolidated revenue for 2019 was NTD 120,068 million, an increase of 1.83% compared to previous year. Net income was NTD 12,402 million (net income attributable to the parent company was NTD 8,685 million), an increase of 7.5% from previous year. The consolidated earnings per share (EPS) was NTD 14.18 (consolidated EPS attributable to the parent company was NTD 9.93).

**2010 - 2019 Consolidated Revenue**

### 2010 - 2019 Net Income



Note 1: \*Financial numbers based on the IFRS principle approved by the Financial Supervisory Commission as of January 1, 2013.

Note 2: Net incomes in the table refer to the consolidated net income after tax attributable to the parent company.

The 2019 Shareholders' Meeting approved the distribution of cash dividends for 2018 at NTD 4.459774 per share. In 2019, ZDT distributed NTD 4,024 million in cash dividend to holders of common shares. The Company continues to maintain steady operation and profit. Between 2013 and 2019 the Company has distributed an accumulated amount of NTD 18,649 million in cash dividend.

### Cash Dividend Per Share

2013	2014	2015	2016	2017	2018	2019
2.0	2.9998605	3.6713641	4.5	2.2	3.3	4.459774

2013	2014	2015	2016	2017	2018	2019
1,407	2,216	2,955	3,621	1,770	2,656	4,024

In facing the risks of a declining macro economy in the overall environment, the Company continues to strengthen control over financial risks by conducting reviews and adjustments as needed to increase its capital efficiency and to secure adequate cash flow. As of the end of 2019, the Company's debt ratio was 35%, surpassing market level in the industry. Capital abundance lays a firm foundation for the company's future development and response to various types of risks and changes.

We are devoted to pursuing excellence in both product quality and technology innovation. Our annual technology R&D expenditure accounts for 5% of the total revenue. The Company not only holds a leading position in the industry, but it is also comparable to an international innovative enterprise, which fully demonstrates the Company's commitment to the research and development of technologies. The Company continues to apply for patents around the world, including Taiwan, Mainland China, the United States, etc. As of the end of 2019, the Company has submitted 2,029 patent applications and received 904 valid patents.

With respect to product development, the Company has constructed a complete product portfolio, which includes the R&D and manufacturing of flexible printed circuit boards (FPC), high density interconnection (HDI), rigid printed circuit board (R-PCB), IC substrate, substrate-like PCB (SLP), rigid-flex printed circuit boards (Rigid Flex), and chip-on-film (COF), among other products. The Company participates in customers' preliminary product development and verification, collects information on product trends to plan the development of state-of-the-art technologies, and provides customers with a one-stop service that includes product design, R&D, manufacturing, and after-sale services.

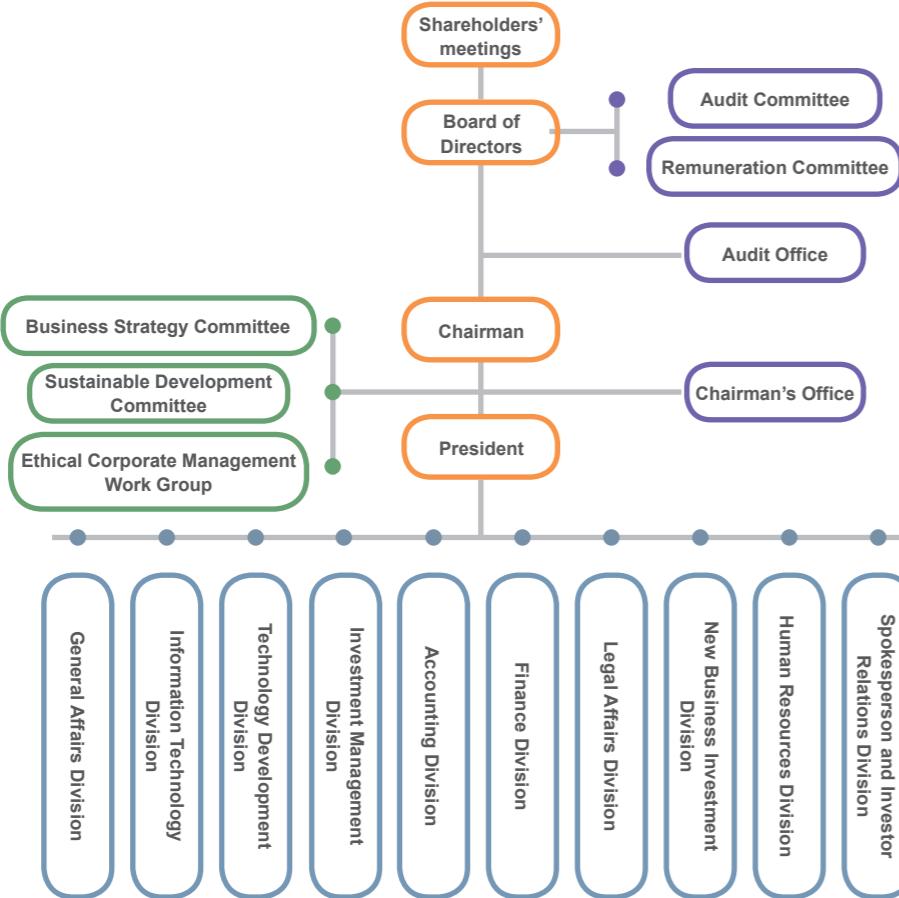
The Company is focused on long-term participation in customers' preliminary product research, development, and design. We seek to use innovation and R&D to guide customers and commit resources to developing new products, new technologies, new materials, new manufacturing processes, and new equipment that meet customer demands. In addition to R&D, the Company has also established a platform for cooperating with industries, the government, academia, and research institutes to engage in advanced technological R&D projects. We have also established a technological R&D center to work on R&D projects with more than 18 prestigious universities and two research institutes in Taiwan, China, Hong Kong, and Macau, including ITRI, Tsinghua University, Chiao Tung University, Cheng Kung University, Chung Hsing University, Taiwan University of Science and Technology, Chung Yuan University, Feng Chia University, an related departments in China's Tsinghua University, Nanjing Southeast University, Shenzhen University, and Guangdong University of Technology. R&D works are aimed at increasing the depth and width of technological developments and integrating up/mid/downstream industries to develop new models and achieve independence in key technologies. Concurrently, the Company has established dedicated units to carry out technology investments and research and achieve the strategic goal of developing technologies and materials independently, so that we may strengthen the Company's core technologies, guide customers in long-term partnerships, fully satisfy customers' demands for new products, and continue to create win-win conditions for mutual prosperity.

### Technology and R&D Achievements of ZDT and Subsidiaries

1. Mass production of multi-row fine-pitch board-to-board interconnected modular products
2. Mass production of multi-channel millimeter wave antenna transmission cable products
3. Mass production of highly reliable solid state drive boards
4. Mass production of multilayer liquid-crystal high-molecular millimeter wave antenna products
5. Mass production of embedded ultra-thin wire semiconductor products
6. Mass production of semi-finished ultra-thin wire semiconductor products
7. Successful development of high-reflectivity high-definition monitor backlit circuit board
8. Successful development of high-rigidity localized micro-bend wearable products
9. Successful development of ultra-long flexible PCB
10. Successful development of allotype flexible rigid boards for high-resolution monitors
11. Successful development of HDI flexible rigid boards for earphones
12. Successful development of high-aspect ratio pore-filling electroplated flexible PCB
13. Successful development of cavity technique vehicle-mounted and USB-C connector boards
14. Successful development of hybrid stacked micro blind flange boards
15. Successful development of arbitrary-layer interconnected embedded copper heat dissipation boards
16. Successful development of ADAS vehicle-mounted products
17. Successful development of fine pitch thermo-tinned welding technology
18. Successful development of ultra-long pore technology for high-speed transmission
19. Successful development of optical communication modular rigid PCB
20. Successful development of ultra-thin high-rigidity camera flex rigid hybrid boards
21. Successful development of 5G flexible printed antenna board for laptop computers
22. Successful development of ultra low-loss PTFE-based antenna board
23. Successful development of periscope camera lens ultra-thin flexible PCB
24. Successful development of high-density dry interconnection technology
25. Successful development of low-noise long short gold finger server products
26. Successful development of high precision backdrill plug hole server products
27. Successful development of high-frequency hybrid 5G rigid printed products
28. Completed setting up of ultra high-aspect ratio rigid printed electroplating technology
29. Successful development of 0.15 pitch flip chip pre-tinning technology
30. Successful development of ultra-thin core semiconductor process

## 1-2 Corporate Governance

In addition to complying with the Company Act, the Securities and Exchange Act, and other laws and regulations applicable to the Republic of China, ZDT has also established the Corporate Governance Best Practice Principles, Ethical Corporate Management Best Practice Principles, Corporate Social Responsibility Best Practice Principles, Rules of Performance Evaluating for Board of Directors and Functional Committees, Standard Operating Procedures for Requests Filed by Directors, Ethical Corporate Management Operating Procedures and Code of Conduct, etc.



### Composition of the board of directors

To strengthen the structure of the board of directors, we amended the Corporate Governance Best Practice Principles on March 20, 2015 and formulated diversification plans including but not limited to age, culture, and educational background, in order to select people with talents and skills.

ZDT's Board of Directors is composed of seven directors with different professional backgrounds (tenure starting from June 20, 2017 to June 19, 2020), of which three were independent directors. All members are knowledgeable about industries and are equipped with the skills to lead, make decisions, make judgment calls for business operations, and run a business. Among them, the Directors Che-Hung Yu and Independent Director Tung-Sheng Hsu have legal expertise. The Independent Director Chih-Chen Chou has a finance and accounting background and is a professional CPA. We leverage the diverse industry expertise of Directors to gain positive benefits for the Company's operations and development.

### 2/ The Operation of the Governance Framework

In total, seven board meetings were held in 2019 and were attended by all the independent directors (100% attendance rate) and by 96% of all the directors. The Board of Directors is the governing body in charge of promoting corporate governance. To improve the operational efficiency of the Board of Directors, the Company has set up an Audit Committee and Remuneration Committee, both of which answer to the Board of Directors. The tenure of the committee members is the same as directors. The main function of these two committees is assisting the board to carry out its supervision responsibilities. The organizational charter of each committee has been approved by the Board of Directors. Each committee periodically reports to the Board of Directors on its activities and resolutions. The Company did not report of any recusals of Directors due to conflicts of interests. For details on the composition, responsibilities, and major resolutions of the Board of Directors and Audit Committee, please refer to the 2019 Annual Report of ZDT [http://www.zdtco.com/en/investment/inv\\_02-4.asp](http://www.zdtco.com/en/investment/inv_02-4.asp), or inquire on the MOPS.

ZDT places value on shareholders' equity, information transparency, and ensuring that shareholders are treated equally. We purchase liability insurance for the duration of directors' tenure so as to reduce and disperse risks arising from significant damages to the Company and shareholders due to directors' mistakes or negligence. The Company arranges continuing education courses for new or existing directors as needed to continuously impart new knowledge to directors and improve their governing functions. The directors completed 76 hours of continuing education in 2019.

The Company's Board of Directors approved the "Board of Directors and Functional Committees Performance Evaluation Guidelines" on August 10, 2018 and requires at least one performance evaluation of the Board of Directors and functional committees each year. The Company completed evaluations of members in January 2020. The evaluation results and plans for continuous improvement in the following year will be presented to the Board of Directors on March 30, 2020.

The Company's performance evaluation of the Board of Directors and functional committees shall include at least the following five measures:

1. Measures of the Company's board performance evaluation include the following five dimensions:
  - (1) Level of participation in the Company's operations
  - (2) Improvement in the quality of decision-making
  - (3) Composition and structure
  - (4) Election and continuing education
  - (5) Internal controls
2. The items of self-assessment for directors should encompass at least the following six dimensions:
  - (1) Familiarity with the Company's goals and mission
  - (2) Understanding of the role and responsibilities
  - (3) Level of participation in the Company's operations
  - (4) Internal relations management and communication
  - (5) Professionalism and continuing education
  - (6) Internal controls
3. The Company's evaluation items for the performance evaluation of functional committees shall include at least the following five dimensions:
  - (1) Level of participation in the Company's operations
  - (2) Understanding of the committee's role and responsibilities
  - (3) Improvement in the quality of decision-making by the functional committees
  - (4) The composition of functional committees and the election of committee members
  - (5) Internal controls
4. After the questionnaires are collected, the Chairman's Office, who is responsible for the performance evaluation of the Board of Directors and functional committees, shall report the evaluation results to the Board of Directors and propose recommendations for improvements.
5. Rules of performance evaluating of Board of Directors and functional committees and evaluation results is disclosed on the Company's website.

Results of board evaluation on March 30, 2020: Overall operation was favorable.

## Corporate Governance Evaluation

ZDT is honored to have been invited to participate in the TWSE's Corporate Governance Evaluation again. The Company scored 89.4 points in the evaluation of 2019. The range of our ranking by listed companies was 6%-20%. ZDT's performance in the four evaluation indicators of protecting shareholder rights and interests, treating shareholders equitably, enhancing board composition and operation, increasing information transparency, and putting corporate social responsibility into practice over the years is as follows:

Year	Evaluation Score	Rank Range
2014	85.29 points	6%-20%
2015	84.65 points	6%-20%
2016	80.54 points	21%-35%
2017	83.26 points	21%-35%
2018	89.50 points	6%-20%
2019	89.40 points	6%-20%

## Implementation of ethical management

We have set the following goals and achieved them step-by-step to ensure ethical management and prevent corporate corruption, which would otherwise destroy our ethical value and compromise corporate sustainability:

1. All of our employees have completed confidentiality and ethical education and training, and all of them have passed examinations.
2. Our major suppliers have received awareness training on the company's sunshine policy and signed letter of commitment.
3. There were no violation of laws.

- Employee: Confidentiality and ethical training completion rate of indirect employees=100%; examination participation rate=100%; Examination pass rate=94%.
- Supplier: Suppliers were made aware of the company's sunshine policy at the supplier meeting. Major suppliers were made aware of it at small meetings and they signed letter of commitment.
- There were no violation of laws.

The Company hopes that the concept of ethical management can be internalized in the day-to-day routines of all employees. We included a code of conduct in employees' employment contract, and incorporated the ZDT Code of Conduct as one of the six major focuses of orientation training for new employees.

The Company has established the Ethical Corporate Management Operating Procedures and Code of Conduct and Anti-Corruption Policies as well as a whistleblowing system in which the Chairman's mailbox is installed in the public areas of manufacturing sites and complaint hotline and internal/external emails are provided. Any complaints are investigated and handled by the legal department or audit office. Regarding violations of the code of conduct or unethical conduct, the Company's employees could report them to their immediate supervisor and make or file a complaint through the head of the legal department.

The Company retains records on case acceptance, investigation processes, investigation results, and relevant documents. We also established confidentiality mechanisms to protect the identity of the whistleblower and the contents of the report. There were no major violations of ethical management in 2019; nor were there significant fines of NTD 1 million or more for non-compliance with laws or regulations or non-monetary sanctions.

## Formulation of Ethical Management Policy

To build an ethical corporate culture and an effective model for managing business operations, ZDT has established Ethical Corporate Management Best Practice Principles, with clear statements regarding relevant procedures, code of conduct, punishment for violation, rules of appeal, and the commitment to implement the principles.

1. The Company fully discloses corporate governance information such as financial information, stock prices and dividends, organizational structure, and the Company's operation results in quarterly reports, annual reports, and the Company's website to truthfully reflect the performance of business operations.
2. The Company has declared its ethical corporate management policies and procedures in its rules, CSR report, and external documents. In addition, the Board of Directors and the management have actively discussed this issue in the board meeting on June 21, 2019 and implemented the management policy. We also strictly implement these policies and procedures in the Company.
3. The Company has established the Ethical Corporate Management Best Practice Principles and stipulated operating procedures, code of conduct, punishment for violation, rules of appeal and implemented them in practice. We also conduct scheduled/unscheduled internal audits to reduce the probability of unethical conduct.
4. For business activities with higher risks of unethical conduct, the Company evaluates the legal compliance and unethical conduct records of its agents, suppliers, customers, or other transaction counterparties before conducting business with them to prevent transactions with those that have records of unethical conduct. When the Company signs contracts with other entities, the Company includes provisions requiring compliance to its ethical business policy and termination or cancellation of the contract at any time in the event of unethical conduct by the transaction counterparty.
5. The Company evaluates the legal compliance and unethical conduct records of its agents, suppliers, customers, or other transaction counterparties before conducting business transactions to prevent transactions with companies that have records of unethical conduct.
6. The Company's Human Resources Division, Legal Affairs Division, Investment Administration Division and other units jointly formed the Ethical Corporate Management Work Group to take charge of the establishment, supervision, and execution of ethical corporate management policies and prevention solutions. The Chairman's Office is the part-time unit responsible for implementing ethical corporate management. It exercises due administrative diligence, supervises the Company to prevent unethical conduct, reviews the effectiveness of implementation and makes continual improvement to ensure the implementation of the ethical corporate management policies, and reports to the Board of Directors when necessary.
7. The Company has established the Ethical Corporate Management Best Practice Principles to clearly stipulate the policy for preventing conflict of interests and provide channels for filing related complaints. The Principles are strictly implemented.
8. The Company has established effective accounting and internal control systems to implement ethical management and conducts unscheduled reviews to ensure that the design and execution of the system remain effective. Internal auditors periodically review the compliance status and file audit reports to the Audit Committee and Board of Directors. The range of auditing activities encompass all manufacturing sites. According to the audit plan implementation results, there were no manufacturing sites/product lines or activities with significant risk of corruption.
9. The Company has organized 2,035 related internal and external courses on ethical management (including ethical corporate management regulations, food safety and health management, accounting system, internal control system, and insider trading) in 2019 with more than 658,847 attendances in these courses.

## Other Regulations Relevant to Ethical Management

ZDT has established the Code of Conduct for Employees and applicable regulations and rules to help employees to build an effective behavioral model that conforms to ethical standards and enables employees to better understand our code of conduct. In addition to asking employees to sign employment contract, we also include work rules in handbooks for new employees and existing employees. These handbooks are available in Simplified Chinese and Traditional Chinese so that all employees are provided with a guide to follow.

### Employee Code of Conduct

#### (1) New employee guide:

The guide allows new employees to quickly learn about the Company's environment and operations of related attendance systems after reporting for duties.

#### (2) Employee Handbook:

The Work Rules are specified in the Employee Handbook as well as the digital human resources platform for employees' reference and compliance to protect their rights and interests.

The main chapters contain the following items:

- a. Working hours, leaves, and holidays
- b. Extended unpaid leaves and reinstatement
- c. Attendance management
- d. Salary
- e. Overtime work
- f. Rewards and penalties
- g. Performance evaluation
- h. Benefits
- i. Education and training
- j. Business travel
- k. Discharge, layoff, and resignation
- l. Retirement
- m. Occupational injuries, illnesses, and compensation
- n. Industrial safety and sanitation
- o. Communication between labor and management
- p. Sexual harassment prevention
- q. Confidentiality regulations, etc.



#### (3) Employment Agreement:

The Agreement specifies terms the employee must abide by after negotiations between labor and management to protect the interests of both parties.

The main terms are as follows:

- a. Terms of services
- b. Intellectual property right ownership
- c. Non-infringement guarantee
- d. Confidentiality
- e. External communication
- f. Information security
- g. Integrity and self-disciplinary clause
- h. Non-compete clause
- i. Avoidance of conflicts of interest, etc.

Additionally, the Company has established the Code of Ethical Conduct, Ethical Corporate Management Best Practice Principles, and Corporate Governance Best Practice Principles among other applicable regulations, with the hope of implementing ethical management in daily operating activities and spreading the culture of integrity and ethical value to members of governance units, employees, and business partners.

We also make use of our internal communication channel, the Ding Sheng Monthly, to advocate the importance of ethical management. Interviews with senior executives are vividly presented to imperceptibly imbue in employees how important ethical management is to personal development and corporate operations.

We set up an internal audit unit that is directly subsidiary to the board of directors. The Audit Office comprises one chief auditor and nine internal auditors.

The internal control system and annual audit plans of ZDT are resolved and approved by the board of directors. Every year, the internal audit unit that is directly subsidiary to the board of directors investigates and assesses the deficiency of internal control system, measures operational efficiency, and provides timely recommendations for improvements in order to ensure continuous effective implementation of internal control and to provide a basis for review and modification of the internal control system. We also formulate annual audit plans according to company operations, applicable laws and regulations, and risk assessment results in order to implement the management of supervision mechanism and control of various risks. All significant operational decisions of ZDT are assessed and analyzed by responsible departments. Major decisions are resolved by the Board of Directors before execution.

Eighty five items were reported in the 2019 Audit Plan, and all 85 items have been implemented. We did not identify any significant matters that require improvement. Improvement solutions to recommendations for internal control have been proposed.

To systematically control risks, we drafted the Regulations Governing Risk Management Leadership, Organizational Structure, and Responsibilities. The chairman is designated as the person in charge of risk management who decides on the overall operational strategies of ZDT and announces the initiation of contingency measures when appropriate. The head of the Finance Division is authorized to act as the person in charge of the Risk Management Office who oversees establishment and coordination of the organization in a manner that avoids or reduces operational risks as much as possible.

ZDT has continuously improved its legal systems and compliance mechanisms ever since its establishment. It pays close attention to any changes made at the location of business operations, particularly with regards to governmental policy trends and regulatory amendments, in order to ensure that we abide by local laws and regulations. As of the publication date of the CSR report, ZDT did not engage in any significant violations of laws (penalties exceeding NTD 1 million). PCB is a mature industry. According to Prismar statistics, the market size of this industry is roughly USD 61.3 billion. ZDT reported an operating revenue of USD 3,878 million in 2019, accounting for 6.3% of the global market. In 2019, ZDT was not involved in legal actions for anti-competitive behavior, anti-trust, and monopoly practices in Taiwan and overseas. As our business grows, we formulated the Ethical Code of Business Conduct, in which we made a promise to strictly adhere to standards relevant to fair trade, advertising and competition. In future, we will continue to deepen our anti-competitive management system.

From 2002 to 2019, we have been an official member of the Taiwan Printed Circuit Association (TPCA) in the name of ZDT. The chairman also served as the ninth to twelfth honorary director from 2016 to 2019. We hope to improve the overall competitiveness of the PCB industry by interacting with peers, participating in international circuit related activities, and training talented professionals.



### 4/ Risk Control and Management

### 5/ Regulatory compliance and anti-improper competitive behavior

### 6/ Participation in External Organizations



# 2020

Strategic Partners  
Customer Satisfaction

- 2-1 Supply chain partnership
- 2-2 Product quality
- 2-3 Customer service and support

### Key Achievements

Total Number of Suppliers who Completed  
Quality and Social Responsibility On-site  
Audits in 2019

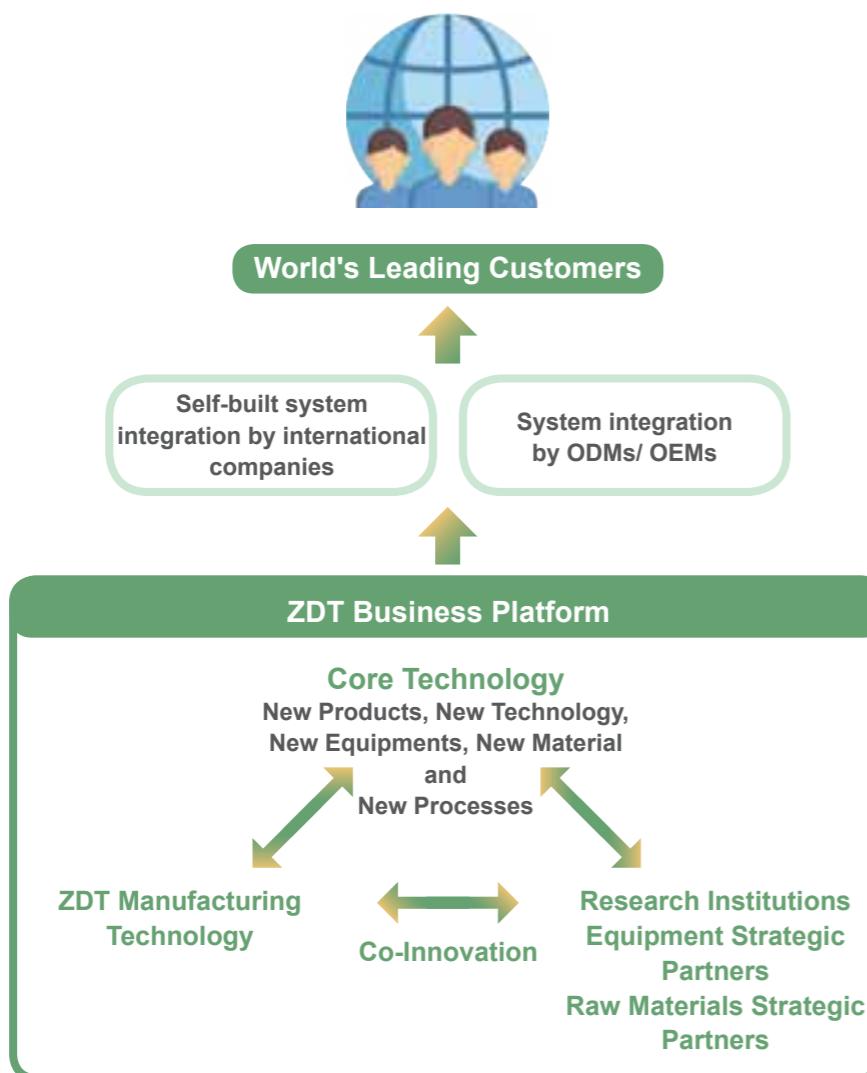
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2019 Customer Satisfaction Survey  
Result Averaged

85.83%

## 2-1 Supply chain partnership

The Company has always been happy to share our experience with strategic partners and learn from each other in research and innovation. ZDT PCB Business Platform is a stage on which ZDT and its suppliers, professional agencies, and other strategic partners can grow together and share results. We firmly believe that business management is not a zero-sum game but it is about coexistence and joint prosperity with strategic partners. We hope to form alliances with strategic partners to jointly innovate and develop core technologies (new products, new technologies, new equipment, new materials and new processes) and share the results. We also hope that our high-quality circuit boards can be widely adopted in products of end-customers for the benefit of consumers and society, thereby realizing ZDT's mission of "developing technologies for the betterment of human beings and protecting the environment for a greener earth."



## 1/ Local Purchase

ZDT views suppliers as strategic partners. We firmly believe that business management requires coexistence, joint prosperity, and joint development with partnering suppliers. ZDT's supply chain can be divided into four categories, namely, raw material, engineering, equipment, and module/contract suppliers, with the number of raw material suppliers being the highest at 286 as of 2019. Based on monetary amount of purchases, 79.6% of our purchases were made from raw material and equipment suppliers.

ZDT's main production base is located in mainland China. To promote local industry cluster and boost regional economic development, we choose to work with local suppliers as much as possible, except for chemicals and equipment, which are outsourced from overseas. In 2019, 47.6% of the Company's purchases were made from local suppliers, of which 98.2% and 92.9% were from local engineering, module/contract suppliers, respectively.



## 2/ Supply Chain Management

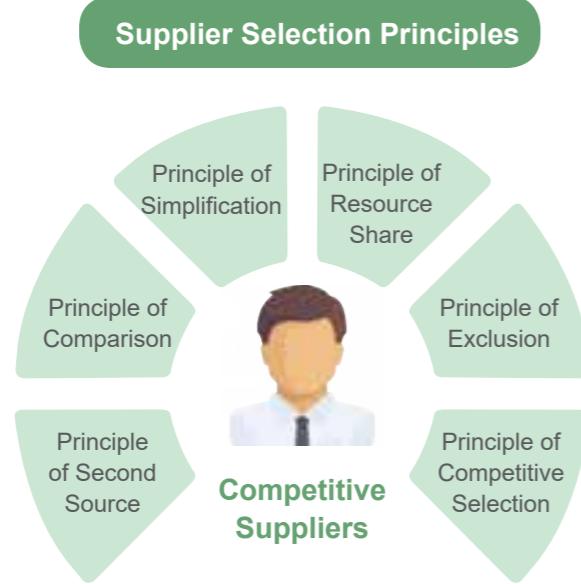
ZDT has invariably adopted the strategy of "buying technologies, talents, markets, and products that are reasonably priced in the long run". We cultivate competitive and excellent suppliers. Through periodic auditing, guidance, and performance monitoring, we continuously improve the quality, price, delivery, and service quality of suppliers to eventually achieve mutual benefit. ZDT establishes monitoring indicators relevant to supplier management:

Annual Target of Supplier Management	Actual Performance in 2019		Target in 2020	Target in 2023
	Target in 2019	2019		
Supplier Annual Audit Completion Rate		100%	100%	100%
Supplier Performance Achievement Rate		80%	82%	90%
Green Supply Chain Promotion Rate		80%	80%	90%

ZDT has established a complete supply chain management system and set up a department in charge of supplier management. Via procedure for supplier (sub-contractor) management, we systematically and comprehensively manage the quality, delivery, service, and prices of goods supplied. ZDT also established the Procedure for Supplier Social Responsibility Management, Process for Supplier Conflict Minerals Management, and other documents to extend our social responsibility ideals to the supply chain and establish partnerships with suppliers for joint management. We require suppliers to adhere and commit to such regulations and ensure that all of their operations meet the applicable environmental laws, labor laws, and international corporate social responsibility regulations. ZDT has requested suppliers to provide a Letter of Supplier's Undertakings before working with them, which covers ethical conduct, human rights, and environmental aspects, as well as provisions that state that agreements shall be terminated or canceled when suppliers violate corporate social responsibility policies to an extent that poses significant impact on the environment and society. In 2019, 100% of our suppliers have signed this Letter.

## Supplier Selection

ZDT has established a complete set of applicable management regulations in order to continuously sustain a stable supply of materials that meet quality, environmental, delivery, service, and price requirements and to facilitate the completion of a comprehensive management system for suppliers, thereby achieving mutual benefit. Competitive suppliers are selected by following six major principles through material assessments with the assistance of professional audit teams.



1. Simplification principle: suppliers shall be simplified in quantity and developed in scale and competition power so as to reduce the management cost of suppliers
2. Resource share principle: each business unit shall share their resources concerning the suppliers
3. Comparison principle: it needs open in the course of comparison and appraisal and wholly considers price, quality, compatibility and engineering technology, etc.
4. Exclusion principle: any supplier who has ever brought serious loss or negative influence to the Company shall be excluded.
5. Competitive selection principle: it shall analyze material market and select the suppliers with good competition .
6. Second source principle: there should be an alternative supplier of a material.

\*Note: Apart from the above principles, priority is given to ISO9001/ISO14001/ISO45001/QC080000-certified suppliers.

## Supplier Quality, Hazardous Substances, Social Responsibility Audit and Training

ZDT conducts annual on-site audit on high-risk suppliers by using the material risk classification and annual assessment results according to Process for Supplier Audit. In 2019, a total of 112 suppliers were selected to receive the annual quality and hazardous substance audit; 27.0% of the suppliers passed the audit, 68.5% of them passed with condition, and 4.5% (n=5) failed the audit. Suppliers who passed with condition had the following deficiencies that require improvement: failure to practice onsite management as requested by written documents, unclear designation of materials area, and incomplete supply chain management mechanism. The five non-conforming suppliers had the following deficiency that required improvement: incomplete quality management system and onsite management. These suppliers have been improved with our assistance and finally passed the re-audit.

Supplier Annual Audit Results	2017	2018	2019	Target in 2020
Number of Suppliers Audited	66	96	112	192
Passed	20.0%	38.6%	27.0%	
Passed With Condition	73.3%	53.1%	68.5%	
Non-Conforming	6.7%	8.3%	4.5%	



Concerning over corporate environmental protection issues have spread from companies themselves to their respective supply chain. This trend suggests that companies should not only fulfill environmental responsibilities but also responsibly manage the danger that their supply chains pose to the environment, thereby minimizing the risks of supply chain.

In addition to addressing product and environmental issues, ZDT also raises suppliers' awareness and requirements of labor, ethical, health and safety, and environmental management systems in accordance with the Responsible Business Alliance (RBA) Code of Conduct and SA 8000, which is an international standard that encourages social responsibility. Moreover, we also propose the six items for which we have zero tolerance.



### Six Items of Zero Tolerance by ZDT

1. Use of child labor
2. Use of forced labor/prison labor
3. Presence of health/safety problems that will immediately endanger the life of employees or cause serious injury
4. Retaliation against employees who provide authentic information to auditors
5. Provision of false information to ZDT
6. Presence of environmental problems that will immediately cause serious damage to the society

To ensure that suppliers manage the environment, maintain labor health and safety activities, comply with customers' and regulatory requirements relating to social responsibility, and commit to continuous improvement, in 2019, we audited 36 suppliers onsite to evaluate their social and environmental responsibilities. According to the evaluation results, 5, 23, and 8 suppliers obtained green, yellow, and red rating, respectively<sup>(Note)</sup>. The three lowest scored items were occupational health and safety, emergency response, and working hours. With respect to these potential negative impact, we have, in line with our corporate social responsibility ideals, asked these suppliers to propose improvement plans. We continue to guide, engage, and interact with them to meet the requirements of ZDT, downstream clients, and regulations. Among the 8 suppliers with red rating, 4 have been improved under guidance, and passed the re-audit. The other 4 suppliers are still in the process of improving.

<sup>(Note)</sup>:

1. The number of suppliers audited is based on the number of production sites.

2. Total score: 200; green rating: passed the audit with score > 180; yellow rating: passed the audit conditionally with score  $\leq 180$ ; red rating: failed the audit with score  $\leq 160$ .

3. Audit results are based on the initial audit result.

Apart from supplier social responsibility audit, the Company encourages major suppliers to conduct inventory of GHG emissions, guide them on establishing ISO systems, and increase the green performance of suppliers, thereby enhancing the Company's CSR influence.

### Supplier Education and Training

To strengthen suppliers' capabilities to apply five major tools (APQP/PPAP/FMEA/MSA/SPC), we provided 8 sessions of quality-related training course to 202 suppliers in 2019.



### Grievance Mechanism

ZDT advocates "fairness and impartiality, integrity and self-discipline, honesty and cooperation in building an environment that embraces honest and ethical purchasing" to eliminate any conducts in violation of supply chain management principles. In addition to asking certified suppliers to sign Supplier's Undertaking (which includes integrity requirement), we also inform suppliers related requirements via email or at supplier conferences. We have set up a reporting channel for suppliers to use to file anonymous or registered reports on blackmails, bribes and other unethical business conducts (email: ZDT-CONTACT@ZDTCO.COM).

### 3/ Hazardous substances Management

Since 2008, the production sites of ZDT have passed the hazardous substances management system certification (IECQ QC080000). The objective of our hazardous substances control is "reducing or avoiding the use of hazardous substances to meet regulatory and customer requirements". We control the use of hazardous substances by following the principle of not designing, not purchasing, not introducing, not manufacturing, and not releasing hazardous substances. Testing devices such as X-ray fluorescence (XRF) spectrometer, inductively coupled plasma (ICP), gas chromatography–mass spectrometry (GC-MS), and ultraviolet–visible spectroscopy or ultraviolet–visible spectrophotometry (UV-VIS) are used to conduct scheduled tests in order to strengthen the management of hazardous substances in raw materials and products. Meanwhile, in compliance with customer requirements and regulatory requirements concerning applicable hazardous substances, we establish target indicators that need to be met when shipping out products, and constantly monitor the status of these indicators.

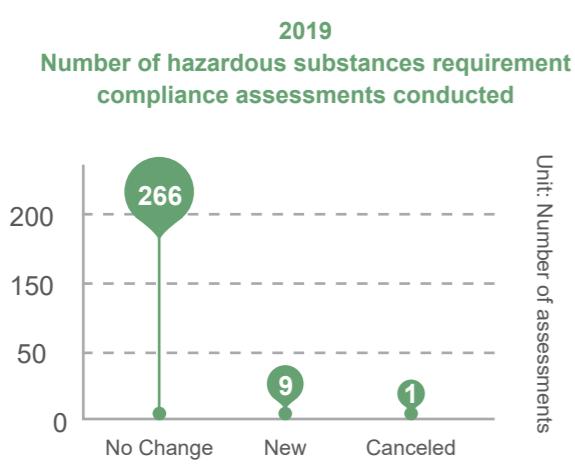
With respect to supplier management, suppliers that transact with ZDT need to sign a Suppliers' Undertaking as indication that they promise the hazardous substances in the products and parts they supply to the Company are in complete compliance with environmental standards and regulations. In addition, we also establish a Green Product organization and construct a green product management platform to continuously promote the management of hazardous substances.

## Green Product Management Platform



Because amendments to international laws on hazardous substances in products frequently revised, we periodically collect legal documents from different countries or regions (EU regions), and file them in ZDT's legal database for integrated management and for reference by applicable departments. In 2019, we evaluated 9 sets of laws and regulations on hazardous substances. We now have complied with related regulations with major updates, which included the REACH's new adding to 21st batch of Substances of Very High Concern (SVHC) List and the revision of the REACH Annex XVII restriction.

Concerning new regulations added by clients, ZDT conducts compliance evaluation every year. In 2019, 95 customer requirements were evaluated; 51 of them were new, and 44 were revised. We exchange and communicate our opinions regarding the appropriateness of customer requirements; If it is feasible, the strictest standards will be set for implement. We also update the company's documents on hazardous substances control. If a requirement cannot be met, we also assess industry standards, and provide reasonable suggestions to customers.



Conflict minerals refer to minerals mined in areas of armed conflict or under conditions that violate human rights, specifically precious metal minerals mined by the Democratic Republic of the Congo and adjoining countries. Conflict minerals include gold (Au), tin (Sn), tantalum (Ta), and tungsten (Wu) (collectively referred to as 3TG) and are mainly used in electronic parts. In response to global control measures for conflict minerals, the Company has incorporated conflict minerals into its supplier management policies, and proposed policies, objectives and management practices to meet international trends and customer requirements.

### 4/Conflict Minerals Management

#### Conflict Mineral Management Policy

- The Company promises that the smelters from which it purchases 3TG are RMI's smelters or customer-approved smelters.
- The Company promises to follow the OECD due diligence guidelines to conduct due diligence on its supply chain.
- The Company promises to not directly or indirectly purchase conflict minerals that directly or indirectly finance armed conflict groups.
- The Company shall not purchase 3TG from the Democratic Republic of the Congo and adjoining countries.
- Suppliers shall impose the same conflict mineral management requirements on their upstream suppliers.

#### Conflict Mineral Management Objectives

- The Company continues to promote supply chain improvement as required by laws and customers in order to eliminate the use of conflict minerals in its supply chain.

#### Conflict Mineral Management Practices

- Conduct investigation to trace conflict minerals in gold salts, electronic parts, tri-tin, and all materials in PCB that mainly contain 3TG.
- Use the list of conformant smelters provided on the RBA website. If a smelter is not on the list, request for a response plan from the supplier.
- Require suppliers to impose the same conflict mineral management on their upstream suppliers.
- Require suppliers to sign a Declaration of Conflict-Free Minerals.

\*Note:

1. 3TG refers to gold (Au), tin (Sn), tantalum (Ta), and tungsten (Wu)
2. RMI: Responsible Minerals Initiative

## 2-2 Product quality

### 1/ Company Quality Policy and Certification



Quality contributes to the company's value, dignity and lifeblood. The Company has always persisted in implementing total quality management to provide customers with near-perfect products and services. Since our inception, we have passed several system certifications (e.g., IATF16949, ISO9001, ISO14001, QC080000, ISO50001, ISO45001) and product safety certifications (e.g., UL/CQC).



● IATF16949:2016



● ISO 9001:2015



● ISO14001:2015



● ISO45001: 2018



● QC080000:2017

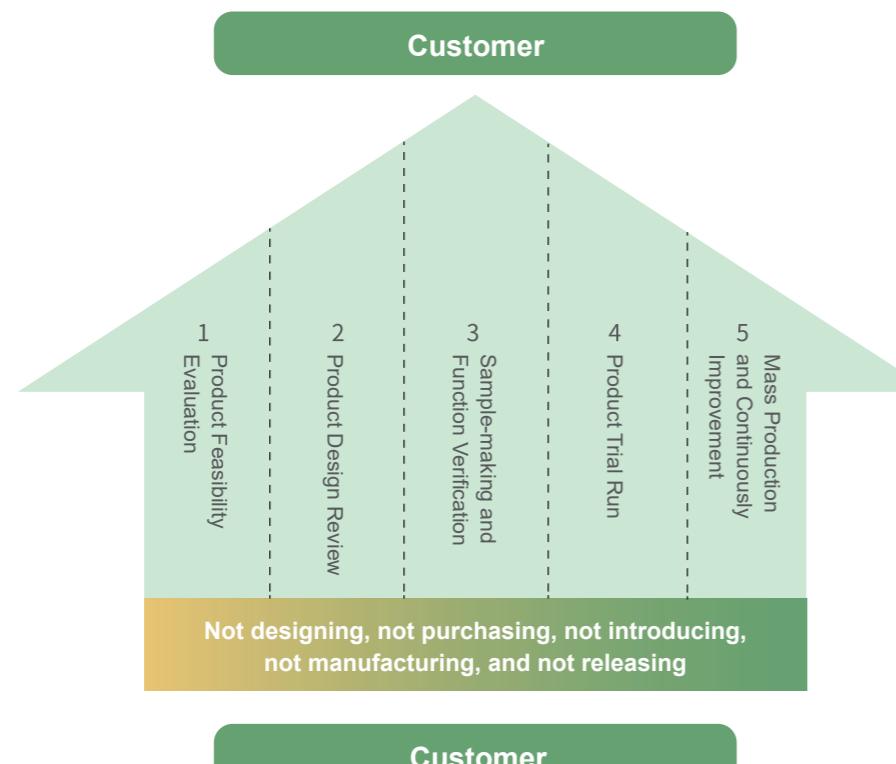


● ISO50001:2011

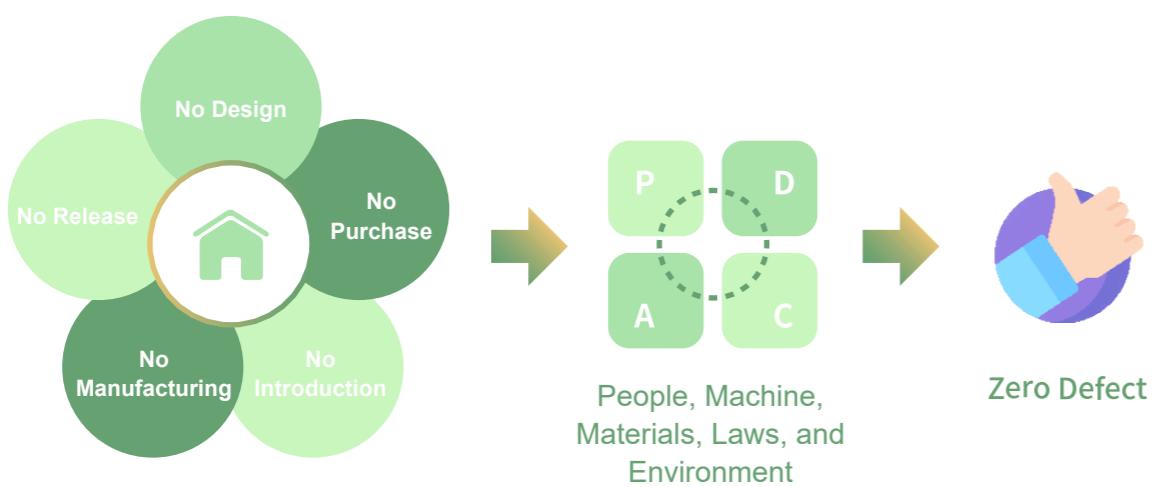


● CQC

## 2/ Product Development Process

2 Strategic Partners  
Customer Satisfaction

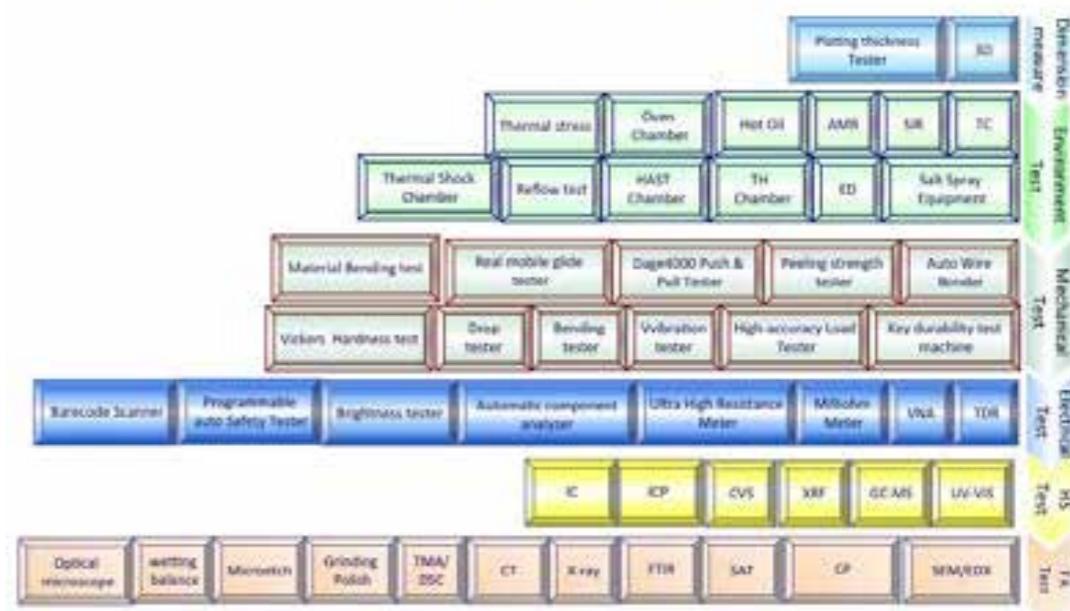
The Company also follows the principle of not designing, not purchasing, not introducing, not manufacturing, and not releasing in each step of managing product-related aspects (people, machine, materials, laws, and environment) and adopts the PDCA model for continual improvement to achieve zero-defects.



The Company develops products in five phases in order to effectively carry out product development tasks and ensure that products meet customer requirements and regulatory requirements on the quality and safety of products developed.

To ensure the materials purchased and products shipped meet the requirements stipulated by customers and law, ZDT has established a Physics Laboratory and Chemical Laboratory where failure analysis, reliability tests, physical tests, and chemical tests can be conducted independently.

## Laboratory Equipment Introduction-overall



## 3/ Improvement

The Company is invariably committed to improving product quality, which is evident by its quality policy: "Implement total quality management to provide quality that meets customers' needs, and ensure total participation in immediate response to achieve the goal of zero defects". To realize the zero defect goal, the Company sets quality goals for each of its product category at the beginning of the year, and conducts daily, weekly, and monthly review meetings to analyze and review non-conforming items. Subsequently, a team is established to carry out projects for improving important items. In 2019, 100% of the Company's external quality systems passed certification.

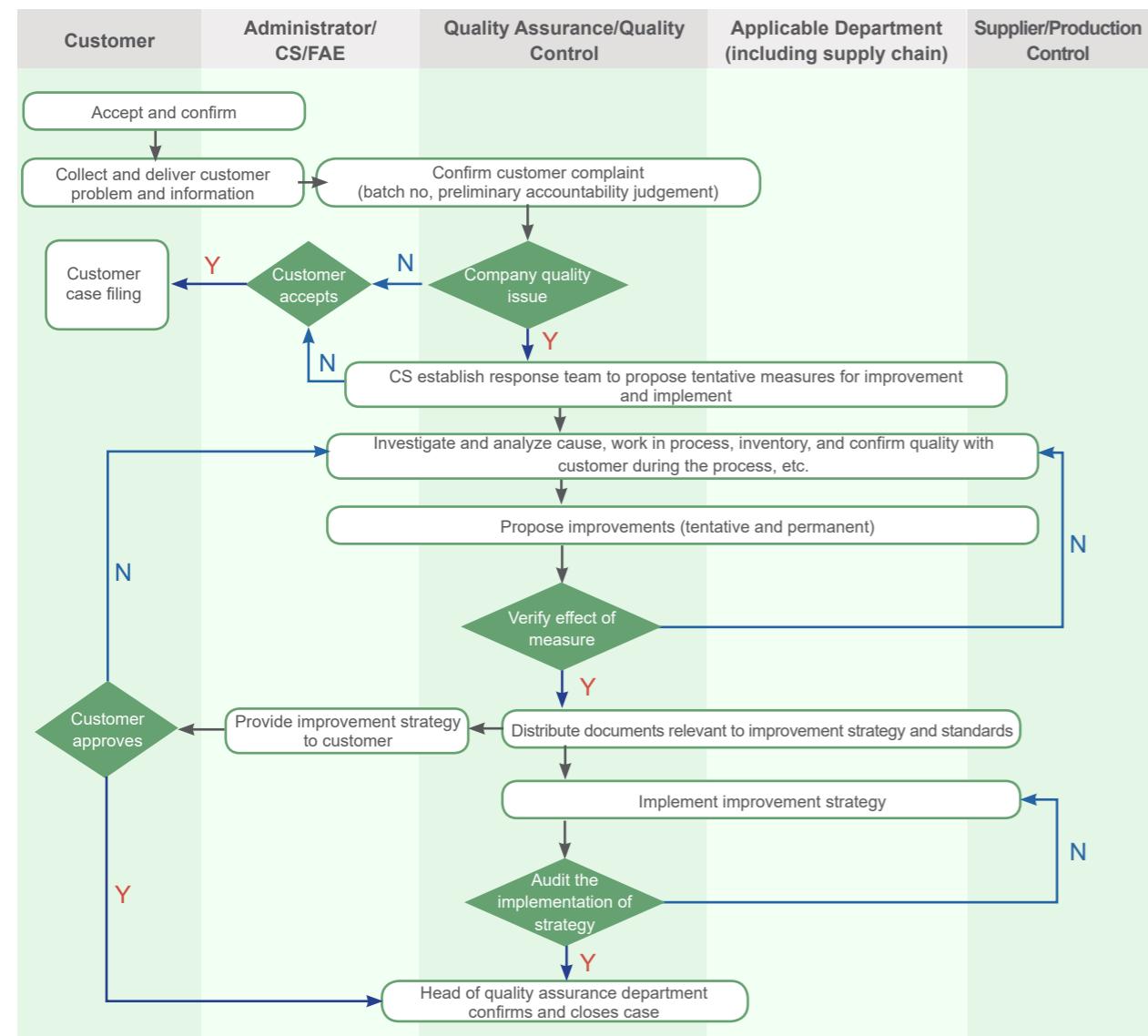
The Company continues to engage in activities relevant to continuous improvement and hold conferences on a yearly basis, in order to comprehensively improve the environment where operators work, raise their quality awareness, improve product quality, increase production and work efficiency, save costs, and reduce wastage. Through conferences and bonuses, we inspire the spirit of "continuous improvement" among employees, boost cross-department cooperation, and strengthen employees' problem-solving and innovation skills, to in turn bolster the company's competitive advantage and achieve customer satisfaction. The Company actualized 2,585 improvement proposals in 2019, generating improvements to the value of 46,483,200 NTD. Proposals that yielded outstanding outcomes included: Improvement to flexible multi-layer RTR process; big data development for testing works; and streamlining AOI resources.

Annual Improvement Proposals	2017	2018	2019
Number of Proposals	899	1,787	2,585
Improvement in Monetary Terms (Unit: NTD)	37,090,000	42,350,000	46,483,200

## 2-3 Customer service and support

Exceeding customer expectation is one of the strategic goals in ZDT's development. We provide excellent customized manufacturing services, continue to upgrade our manufacturing facilities, and actively participate in the early research, development, and designing of customers' products so that customers will rely on our products and services. In addition, we attach importance to customer satisfaction ratings and protection of customers' confidential information. We hope to bolster our competitiveness through continuous improvement of product quality and service contents, thereby becoming customers' long-term strategic partners. Problems relevant to quality (including hazardous substances) and technical problems can be reported via email to customer service personnel: ZDT-CONTACT@ZDTCO.COM

ZDT also values the opinions of every one of our customers and establishes a multi-function team in charge of customer services. Whenever customers need anything via a call, an e-mail, inform us in any way, and each of our customer service personnel will immediately verify their needs. When customers have complains with regard to quality issues, our customer service personnel will call on the departments involved to cooperate and respond to customers' needs as quickly as possible. Specific process is as follows:



ZDT's main clients are major electronics system brands or main electronics OEM companies across the world. Existing electronic products are short-lived and frequently replaced. To meet customers' needs, we provide rapid design, development, sample production, and fast mass production services within a short time. Efficient services help customers to shorten product launch schedule and quickly seize market opportunities. In other words, we help customers by building a successful operation model of Time to Market + Time to Volume + Time to Money / Market Share.

To ensure that all mass-produced products satisfy the needs of customers, the Company works closely with customers in the initial period of the product design phase, and continues to strengthen and refine our technology platform. We also leverage our expertise in R&D and focus on developing technologies and enhancing engineering services, thereby keeping abreast of market trends and business opportunities for new products.

For a long time, ZDT provides customers with flexible and excellent customizable manufacturing services in line with the advantages of customers' multiple production bases. With a marketing combination of flexible printed circuit (FPC), high-density interconnection, rigid printed circuit boards (R-PCB), and IC substrates, we develop new technologies, new materials, and new equipment for specific customers to achieve the goal of expanding our product portfolios and creating a one-stop shopping experience for customers, thereby forging a longstanding relation with them.



### Product Labeling

We manufacture printed circuit boards by strictly following the production control and quality control processes and referring to information provided by customers on materials, electronic components, and design. When customers request for a new raw material to be used, which requires application for safety regulation certifications, we will immediately produce a sample as per customer requirement and submit it for UL certification. Once certification is approved, we will print the safety code or UL Mark on the product so that customers could clearly discern that the product conforms to safety regulations. When shipping products, we voluntarily provide customers with information on the name of materials, ingredients, and hazardous substances test report (compliance with RoHS and HF, among other requirements), and label the outer box accordingly to inform customers of compliance with hazardous substances regulations.

## 2/ Customer Satisfaction

To continuously monitor, analyze, and understand how customers evaluate our product quality (including environmental requirements), engineering capability, response and services, quality of goods delivered, and cost (price), the Company conducts customer satisfaction survey at least once every year. From the results, we analyze items with which customers are dissatisfied and adopt corrective actions accordingly to continuously improve customer satisfaction.

## Customer Satisfaction Survey Process



In 2019, the scope of customer satisfaction survey included (1) key & strategic (K&S) customers, who are those govern industry specs and make large-quantity orders sufficiently large to influence the market share; and (2) customers referred to by top management. The survey results showed that average satisfaction was 85.83%. To continuously improve customer satisfaction, we use the Eight Disciplines Problem Solving quality tool for continuous improvement and set stage-based goals to continuously improve service quality and product competitiveness, thereby achieving total customer satisfaction.

Customer satisfaction survey is improved from the following three aspects:



- Establish review standards: Set customer satisfaction targets for each survey item (quality, engineering capability, response and service, quality/quantity of goods delivered, cost), and continue to review and improve unmet targets.



- Regarding customers: Review and improve items with which customers are dissatisfied and items as recommended to achieve customer satisfaction.



- Compare with competitors: Investigate competitors' advantages, learn from them, and use them to increase and improve satisfaction level.

Customer Annual Average Satisfaction	Actual Performance in 2019	Target in 2020	Long-Term Target
	85.83%	86.00%	90.00%

## 3/ Customer Confidential Information Protection

ZDT formulates information security management related policies in accordance with customers' needs for information security management and with the international information security standard ISO27001. We build a safe and reliable environment where information can be used safely to ensure the security of our computer information, systems, equipment, and networks. By adhering to the three principles of information security—confidentiality, integrity, and accessibility, we protect the non-repudiation, authenticity, and accountability of the overall information assets to ensure the sustainable operation of ZDT business.

To keep the company and its customers' business secrets secure, ZDT specifies items to be managed for information security, including personnel training, information equipment security management, network and anti-virus management. Personnel training is focused on educating new employees on the importance of information security; 328 hours of information security training courses were provided in 2019 to a total of 55,320 people. Through strict control in 2019, the Company did not report of any customer complaints as a result of privacy infringement or loss of customer information.

## Information Security Control

- New employees sign confidentiality agreement when they report for duty and undergo education and training on information security
- Provide education and training on information security appropriate to personnel of their respective level, including: courses on policies, laws and regulations, and how to use information equipment correctly
- Provide anti-virus and anti-hacking education and training to personnel in charge of production equipment management



## Personnel Training

- Restrict personnel access to server rooms
- Establish backup support mechanism according to system importance to avoid system service interruption, which influences company operation
- Control illegal software installation and lock the USB port to control the use of mobile storage devices



## Information Equipment Security Management

- Check visitors when they bring information equipment into a manufacturing site
- Place email and instant messaging software under control
- Separate firewall from Intranet and design a network segment for machine equipment only
- Formulate measures and standard scanning procedures corresponding to the security level of the anti-virus system

# 3

## Environmental Protection for the Benefits of the Society



3-1 Environmental Sustainability

3-2 Global Warming Mitigation

3-3 Water Resource Management

3-4 Clean Production

3-5 Environmentally Friendly Services and Promotion

### Key Achievements

5.637 million tons of water recycled in 2019  
An increase from the previous year

**51.7%**

93.8% of waste resources were recycled  
in 2019

**90% over the years**

## 3-1 Environmental Sustainability

At the end of 2015, the 21st session of the Conference of the Parties to the UNFCCC was held in Paris, where the Paris Agreement was approved to set a goal of limiting global warming to "well below 2°C" compared to pre-industrial levels. One of the largest national emitters, mainland China, also approved this agreement in 2016. In 2018, the IPCC Special Report on Global Warming of 1.5°C indicated that increase in the global average temperature shall not exceed 2°C above pre-industrial levels and efforts should be pursued to limit the temperature increase to 1.5°C. In response, mainland China successively introduced a series of laws, including the New Environmental Protection Law and Atmospheric Pollution Prevention and Control Law, and officially implemented the Soil Pollution Control Act on January 1, 2019. In the Intended Nationally Determined Contributions, China mentioned that its CO<sub>2</sub> emissions are projected to rise until at least 2030 and it will exert efforts to reach its target in advance and cut its CO<sub>2</sub> emissions per unit of gross domestic product by 60-65% from 2005 levels by 2030. On June 15, 2015, Taiwan also passed the Greenhouse Gas Reduction and Management Act, which stipulates achieving the long-term national greenhouse gas (GHG) emission reduction goal by 2050 in stages on a five-year basis. Taiwan also sets to reduce GHG emissions by 50% from the business-as-usual level by 2030, which is equivalent to another 20% reduction from 2005.

As the world's largest PCB company, ZDT realizes the risks of climate change and the potential impacts. We are also deeply aware of the importance of green environmental protection to corporate sustainable development. We believe that if we can play a leading innovator role in environmental protection and energy conservation, we can definitely encourage the entire industry to actively take green actions.

For this reason, ZDT established the Environment and Conservation Division as the unit dedicated to managing matters related to environmental protection and energy conservation in 2007. The Office is in charge of undertaking tasks involved in internal environmental project planning, adding values to resource benefits, practicing environmental management, and introducing innovative energy-saving technologies. Thus, as we engage in production and manufacturing, we can also maximize the effective of various energy and resources to reduce carbon emissions and waste generations, thereby propelling companies to become an excellent green company.

ZDT aims to build a new environment-friendly PCB-conforming demonstration production site and become the promoter and model example of environmental sustainability.

### ZDT Environmental Policy

Prevent Pollution, Continue to Reduce Waste, Provide Environmentally Friendly Products, Energy Saving, Earth Protection, and Be a Green Company

### 1/ZDT Green Culture

#### ZDT's Seven Greens

Chang Fang Shen, the Chairman of ZDT, proposed the idea of "Seven Greens" practices in 2008, which include: Green Service, Green Production, Green Existence, Green Chain of Supply, Green Innovation, Green Action of Recycle, and Green Logistics. These practices provide a comprehensive guide for employees to carefully examine and analyze every aspects in production processes and activities of daily living and to engage in green practices such as saving energy, reducing consumption, reducing waste, and increasing efficiency. We adopt the PDCA model and brainstorming methods to realize this green culture in day-to-day operations at work and slowly become a habit among all of our employees, thus creating a special green corporate culture that cultivates our most valuable intangible assets.

Meanwhile, we also constantly contemplate ways to plant green seeds deep in the minds of our employees so that everyone will value the concept of environmental protection and take actions to realize it, and in turn spread this spirit to the society. Every year, we designate the period from April 22 to June 5 as the Environmental Protection Month. Bearing in mind the importance of sustainability, we cooperate with the governments, communities, schools, and environmental groups in areas where our subsidiaries are located. By working with these entities, we share our green ideals and experiences, all in an effort to care for the environment, contribute to the society, and make earth a better place.

The Company has hosted environmental protection and energy saving activities in designated month for 12 consecutive years since 2007 and collaborated with more than 38 government units, elementary and junior high schools, and environmental groups to organize such activities. We have hosted over 107 edutainment activities in our plants with more than 99,000 people to promote greenification and enable our employees and the society to jointly build a better and harmonious green environment and sustainable society.



Under the leadership of the Company's Chairman, ZDT has always treated environmental protection and safety as the foundation for developing a new environmentally friendly PCB business. Therefore, we gather outstanding environmental professionals from all over the world and establish a professional team at the division of Environmental Protection and Energy Conservation. The team works with various departments to promote green engineering works of ZDT.

In 2013, we built a team of environmentalists and stationed them at every manufacturing site. With the experiences and capabilities of senior employees to carry out environmental works, we applied a series of optimal control measures, including energy saving, water saving, and waste emission reduction, to the three main activities of our manufacturing sites: manufacturing, production, and product line. The scope of these measures cover five major categories: 8S, energy saving, water saving, effluent tower, and waste management.

Concurrently, the environmentalists trained operators who are involved in treating wastewater and effluent generated at the manufacturing site. Applicable training is provided as needed depending on the manufacturing needs of the industrial parks where each of our subsidiary is located. We implement strict effluent control measures at the origin of a production line to reduce governance cost at the terminal end. We continuously promote cross-departmental environmental inspections and reward/punishment systems, and allocate environmental tasks more comprehensively.

Furthermore, we engage in environmental projects based on the characteristics of our industry; these projects are aimed at reducing manufacturing/production wastes at the source by using water sparingly and reducing the use of chemically treated water. By implementing detailed source management and introducing new green technologies, we clearly stipulate requirements for responsible managerial departments and for developing green key performance indicators that will help the company to minimize its environmental impact and simultaneously achieve the objectives of energy performance improvement and green recycling.

The Company pays considerable attention to the impact of climate change on its business operations. In addition to taking actions for energy conservation and carbon reduction, we expanded the scope of the following activities to achieve greenhouse gas reduction: (1) We inventoried the greenhouse gas emissions of our major suppliers, guided them on establishing ISO systems, and increased the depth of suppliers' green management to enhance the Company's green influence; (2) We participated in the international Carbon Disclosure Project (CDP Supply Chain program). We announce our green development ideals and performance in energy conservation and carbon reduction as we learn about carbon management from world-class companies.

The Company has established an email (zdt-contact@zdtco.com) and a mailbox for employees and the general public to provide feedback on environmental protection and environmental issues. The feedback collected will be sent to various dedicated units and department head for appropriate handling. Our plants have established feasible environmental contingency plans that clearly describe the relevant requirements of department heads and fast-response mechanisms when the company encounters environmental problems. The Company adopts information disclosure, electronic methods, and institutionalized strategies to strengthen Zhen Ding's focus on and management of environmental protection.

ZDT has offices around the world and several manufacturing sites located in Shenzhen, Qinhuangdao, Huai'an, and Yingkou. The environmental performance disclosed in this chapter includes five of ZDT's manufacturing sites as of 2019, namely, Shenzhen, Qinhuangdao, Huai'an Comprehensive Bonded Zone, Huai'an, and Yingkou.



## Environmental Safety and Health Management System Certifications of Major Manufacturing Sites

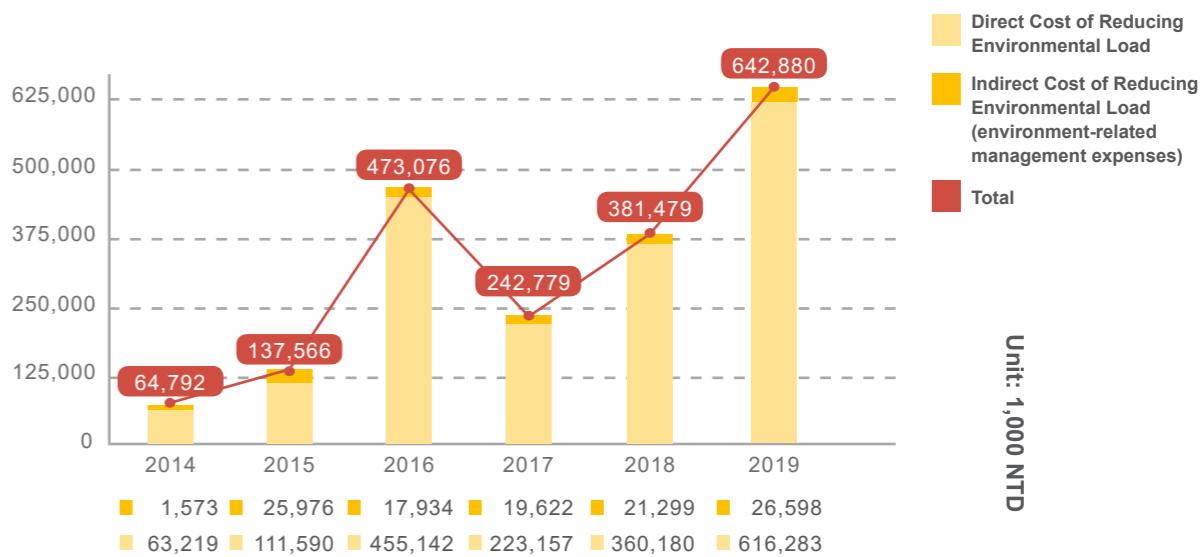
System	Shenzhen	Qinhuangdao	Huai'an Comprehensive Bonded Zone	Huai'an	Yingkou
ISO14001 Environmental Management System	✓	✓	✓	✓	✓
ISO14064-1 Greenhouse Gas Inventory Management System	✓	✓	✓	✓	
ISO50001 Energy Management System	✓	✓	✓	✓	✓
China: Clean Production Review	✓	✓	✓	✓	✓

## 2/ Expenditure and investments for environmental protection

The rise in environmental awareness in recent years has promoted members of the society to scrutinize corporates' environmental efforts. China has implemented increasingly strict control over the emission of pollutants. In the foreseeable future, companies will find it difficult to expand production capacity without increasing total waste generation. To prepare for this trend, we actively develop advanced technologies that facilitate environmental protection through energy conservation, water conservation, emission reduction, and resource recycling. Through these technologies, we hope to reduce the environmental impact of our operations and guide the industry toward sustainable development. Our expenditure and investments for environmental protection totaled NTD 643 million in 2019. Please see the company's annual expenditure and investments for environmental protection as shown below.

In addition, we provide additional commitments to and protection for the local environment and applicable stakeholders. ZDT has voluntarily purchased environmental liability insurances since 2013 to the value of NTD 25 million as of 2019.

### Expenditure and investments for environmental protection



## 3-2 Global Warming Mitigation

The Company began voluntarily implementing GHG inventories since 2007 to monitor the status of carbon emissions of the Company's subsidiaries. We integrated local government requirements and our sustainable development strategies to establish specific energy conservation and carbon emissions reduction goals for each department at the beginning of the year and actively implemented various GHG emissions reduction programs.

We completed the building, certification, and operation of the ISO50001 energy management system in 2015, and continue to improve the company's energy management and operation standards. While managing our energy conservation efforts in greater depth, we also attach importance to the benefits of using energy-saving technologies. The Company's manufacturing sites and other peripheral departments have engaged in multiple energy conservation and reduction projects, such as energy efficiency improvement projects, water management projects, and waste management projects. Meanwhile, we were also invited to participate in the Carbon Disclosure Project (CDP), allowing us to share our green performances and experiences with the international community. As a result, ZDT received a B rating for its CDT performance in 2019, which was higher than the average industries in Asia and the highest among PCB industries in the world.

We also actively participate in the trading of carbon emission in Shenzhen and become a part of China's carbon trading market, not only to ensure that the company maintains sufficient carbon quotas in the future, but also to promote energy-saving measures using advanced technologies, thereby creating favorable opportunities for the company's future long-term business development.

### Risks and Opportunities

 Risks	 Potential Impact	 Opportunities	 Potential Impact
Short-term (1 to 3 years)	Policy and law: Increase in GHG emission pricing	Increase operational cost (e.g., higher compliance cost and increase in insurance premium)	Use more efficient production and distribution processes
Mid-term (3 to 5 years)	Acute: Increase in severity of extreme weather events (e.g., tropical wind, flood, and tropical storm)	Decrease benefits as a result of reduced production capacity (e.g., delay in project approval, potential interruption to supply chains)	Consumer preference changes
Long-term (5 to 10 years)	Reputation: Concerns of stakeholders or increase in negative feedback	Decrease benefits as a result of reduced production capacity (e.g., delay in project approval, potential interruption to supply chains)	Better competitive edge in reflecting the constantly changing consumer preference, which increases profits

### Governance



- CSR Meeting Convener
- Person in charge of climate risk management



- Board of Directors appoint a member of the CSR Organization to supervise climate risk management
- CSR Organization is responsible for reviewing the implementation status of climate change-related issues and appoints a project manager to report to the Board of Directors on the implementation outcomes of climate change-related issues



- CSR Organization appoints Corporate Governance and Economy Group and Energy Conservation Group as the groups responsible for managing climate risks

### 1/ Response to Climate Change

### Strategy and Goal



#### Strategy



#### Goal

Promote Low-Carbon Green Manufacturing	<ul style="list-style-type: none"> <li>• Conduct ISO14064 inventory of Scopes 1, 2, and 3 GHG emissions</li> <li>• Continue to implement various innovative energy conservation and emission reduction projects</li> <li>• Participate in CDP</li> </ul>	<ul style="list-style-type: none"> <li>• Set the 2025 green sustainability carbon emission target based on our energy consumption: Reduce GHG Emission per unit revenue by 50% or more (2013 as baseline for comparison)</li> <li>• Further improve the effectiveness of ongoing projects and introduce new energy-saving carbon-reducing technologies</li> <li>• Continue to participate in CDP, promote green upgrade and reforms, accelerate our steps toward becoming a green company dedicated to excellence in circular economy.</li> </ul>
Increase energy efficiency	<ul style="list-style-type: none"> <li>• Introduce ISO50001 Energy Management System</li> <li>• Engage in advanced water recycling projects, continue to increase wastewater recycling rate, and improve the efficiency of water resources</li> </ul>	<ul style="list-style-type: none"> <li>• Optimize electrical power systems systematically, constantly increase energy efficiency, and fulfill corporate social responsibilities by protecting the environment and saving energy.</li> <li>• Set the 2025 green sustainability water consumption and water recycling targets based on our consumption: Reduce water consumption per unit revenue by 40% or more and recycle 60% of water consumed. (2011 as baseline for comparison)</li> </ul>

Unit: GJ

## 2/ Energy management

ZDT primarily uses electricity to power its production and manufacturing processes, followed by natural gas. Other forms of energy used include purchased steam, purchased heat power for heating purposes in winter, and gasoline and diesel for company vehicles and cargo transport trucks in manufacturing sites.

Our subsidiaries used 4,553,093.30 GJ of energy in 2019, and 4,245,459.42 GJ in 2018. The total energy intensity was 37.92 and 36.01 (GJ/million NTD) in 2019 and 2018, respectively; the total energy intensity in 2019 increased 5.30% from 2018. The major business locations of our subsidiaries consumed 989,495 thousand kWh of electricity in 2019, and registered a power intensity of 29.67 (GJ/million NTD) (Note). The charts below show the energy usage and energy intensity from 2013 to 2019:

\* Note: Sources of equation for calculating energy intensity and energy values

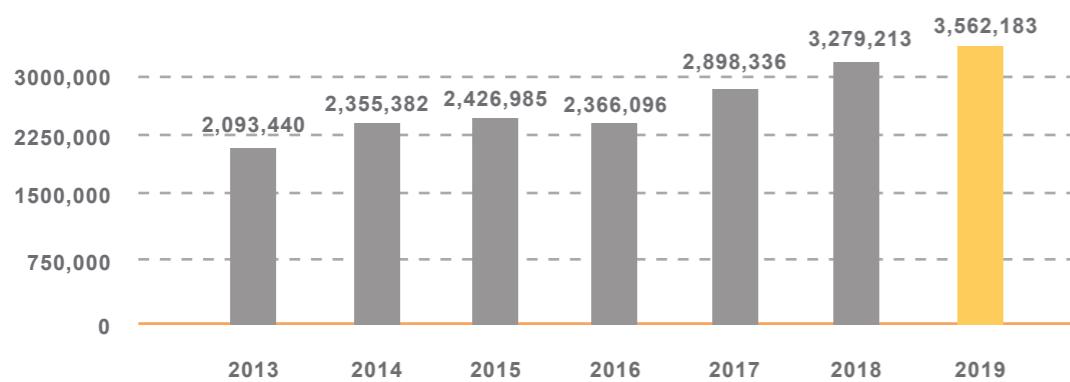
1. Energy intensity=Energy value × Energy Used ÷ ZDT's Consolidated Revenue.

2. Electricity energy value: 3,600 KJ/kWh; Gasoline = 43,070KJ/kg; Diesel = 42,652 KJ/kg; Natural gas = 38,931KJ/m<sup>3</sup>; Purchased steam = 2,768.86KJ/kg for Huai'an.



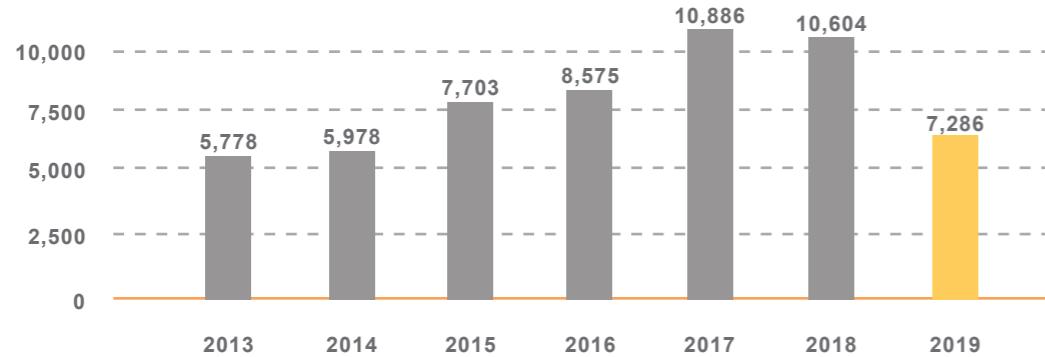
## Energy Consumption Status

## Electricity



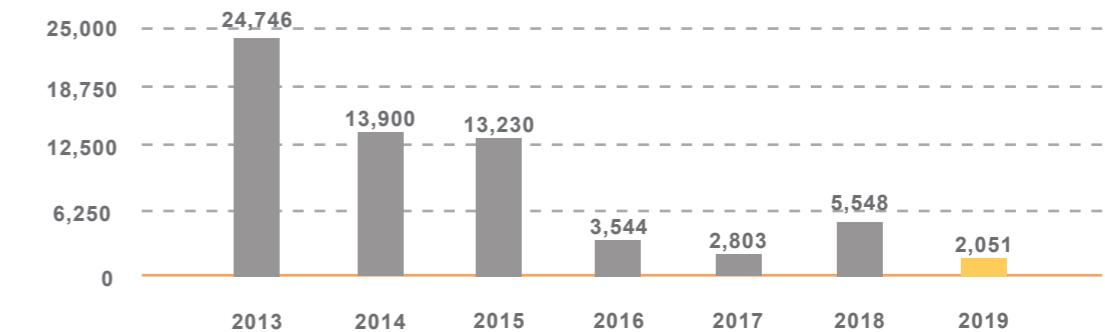
Unit: GJ

## Gasoline



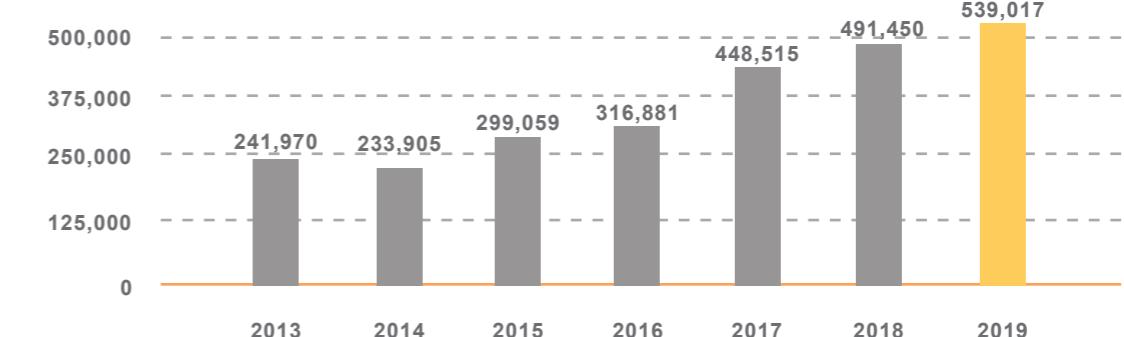
Unit: GJ

## Diesel



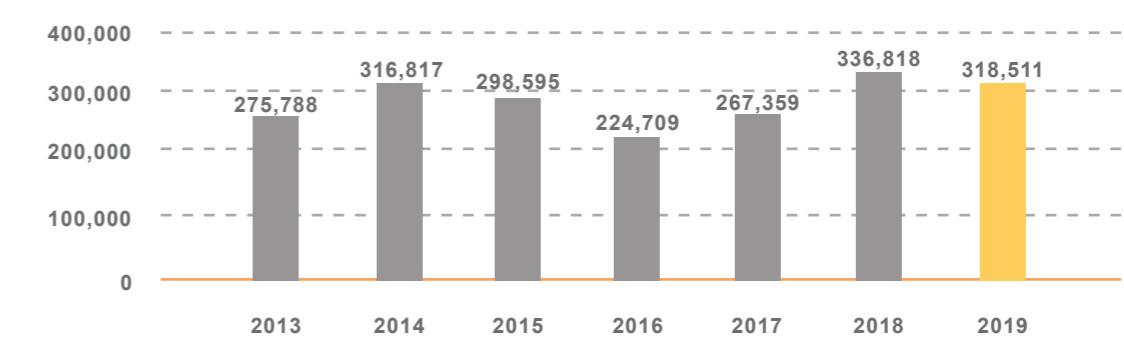
Unit: GJ

## Natural gas



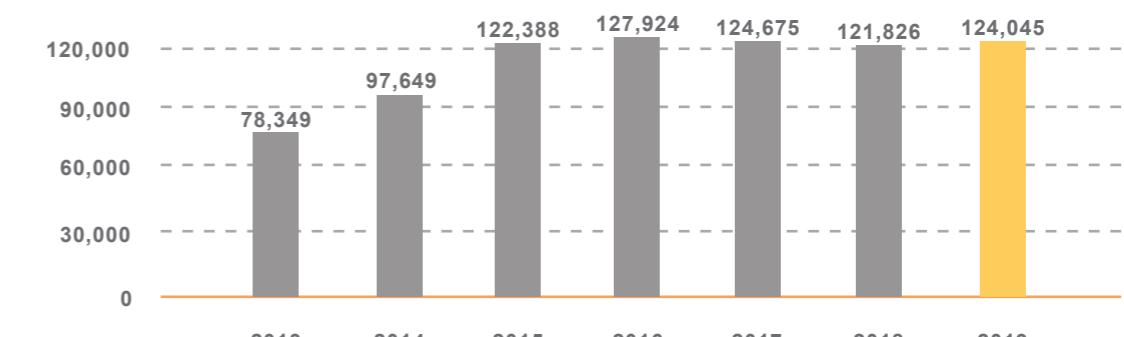
Unit: GJ

## Purchased steam



Unit: GJ

## Purchased heat power



Unit: GJ

### 3.2 Global Warming Mitigation

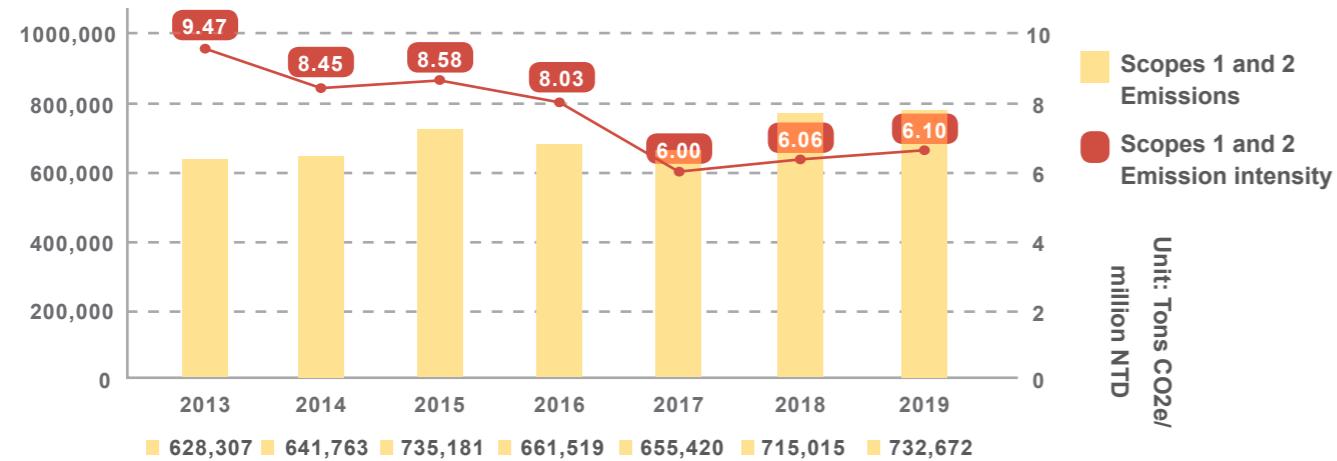
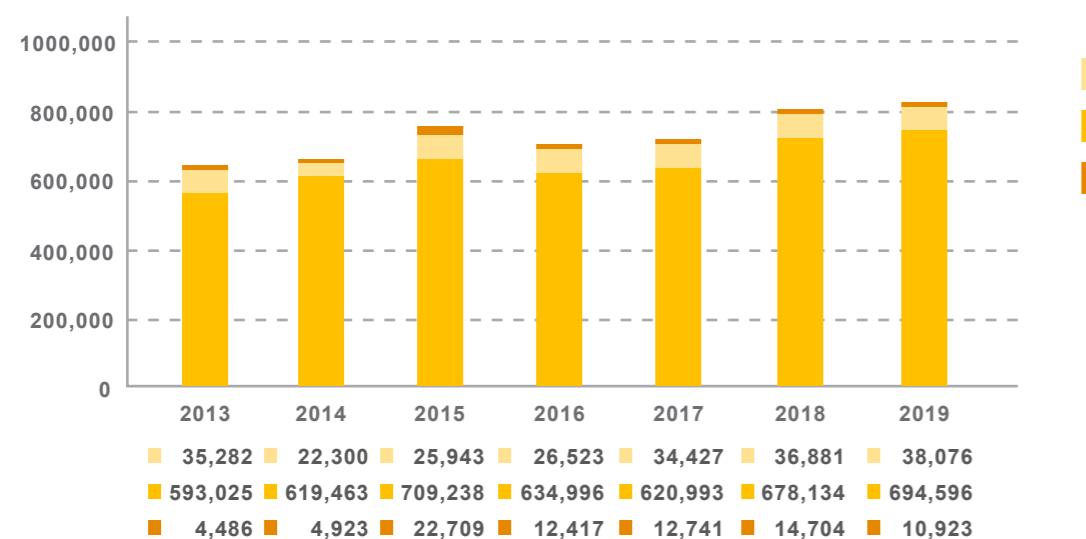


### 3/ Reducing Greenhouse Gas Emissions

We believe that an accurate calculation of GHG emissions is an important step for adapting to climate change and global warming. GHG inventory offers an accurate account of a company's GHG emissions and also provides companies with a basis for reduction to set reasonable reduction targets. Therefore, since 2007, we have periodically conducted annual GHG inventories in accordance with the ISO14064-1 standard, and obtained third-party verification certificates. The scope of inventory includes our four major production sites in areas where our subsidiaries are located.

ZDT emits three types of GHGs: Scope 1 emissions are direct emissions from manufacturing sites and include process-emitted GHGs (carbon dioxide, methane, perfluorinated compounds, hydrofluorocarbons) and GHGs emitted from fuel consumption (e.g., natural gas, gasoline, and diesel). Scope 2 emissions are indirect emissions from use of purchased electricity, steam, and heat power. Scope 3 emissions are other indirect sources of emissions such as business trips, outsourced waste treatments, and up/downstream transportations. The company's GHG emission status is shown in the chart below.

The Scopes 1 and 2 emissions of the Company's main manufacturing sites totaled 732,672 tons CO<sub>2</sub>e in 2019. The Scopes 1 and 2 emissions in 2019 increased by 2.47% compared to 2018 primarily because high-end products are trending and we responded by engaging in the research, development, and testing of advanced technologies, which increased our electricity consumption. In future, we will continue to introduce energy-saving and low-carbon technologies to more effectively manage our carbon emissions.



\*Note:

1. GHGs are inventoried by operational control. The baseline year is 2013 when Scopes 1 and 2 emissions were 628,307 tons CO<sub>2</sub>e and hardware infrastructures were complete. Therefore, 2013 is used as the baseline for comparison with environmental data.
2. Emission intensity = Emissions ÷ ZDT's Consolidated Revenue
3. Emission coefficient is calculated using the latest standards announced by local governments in China (Electricity emission coefficient: Shenzhen=0.5271kg CO<sub>2</sub>/KWh; Qinhuangdao=0.8843 kg CO<sub>2</sub>/KWh; Huai'an=0.7035 kg CO<sub>2</sub>/KWh)

### CDP Participation

Since 2013, ZDT has participated in completing the CDP supply chain questionnaire, which requires us to provide the following information: our strategies in response to climate change, risks and opportunities we identified from climate change, our GHG emissions, reduction targets and performances, and our approaches to managing carbon issues. The Company not only responds to the concerns and expectations of international investors but also examines the impact of climate change on the company. In 2016, the assessment method was changed from a scoring to a rating system to highlight a company's performance in carbon reduction, which is then used as the basis of assessment. We received a B rating in 2019, which was higher than the average score in Asia and the industry and the highest among the PCB industry in the Greater China area.

#### Carbon Disclosure Project

Established in 2000, the CDP Organization is the world's largest carbon information disclosure platform. The organization leverages the power of the market to encourage companies to disclose their impact on the environment and natural resources and to take actions in minimizing such impact. CDP owns the world's largest database containing information on climate changes, water and forest risks. It uses this database to making business investments and policy decisions. As of 2019, 525 investors with US\$96 trillion in asset were asked to provide information on climate change, water or forests. More than 120 countries around the world obtained an understanding of their environmental impact through the CDP programs, over 800 cities have disclosed their environmental information through CDP, and more than 8,400 companies have completed the CDP's climate change, water, forests, and supply chain programs.



We are an active participant of the Shenzhen carbon emission trading system, and we are also cooperating with the government to enhance our ability to manage carbon assets.

#### Emission Trading

Emission trading is the trading of GHG emissions adopted in the Kyoto Protocol based on international laws in order to promote global reduction of GHG emissions. The basic principle of carbon trading is that a party to the contract pays the other party to obtain a permit that allows a discharge of a specific quantity of a specific GHG pollutant. The buyer can use the purchased permit to mitigate global warming effect, thereby achieving its reduction target. Among the six major GHGs, carbon dioxide is most required to be reduced; therefore, the unit of calculation for trading is tCO<sub>2</sub>e. The Kyoto Protocol regards the market mechanism as a new path for solving the GHG reduction problem with CO<sub>2</sub> as representative; in other words, it considers the emission of carbon dioxide as a commodity, thus leading to the trading of rights to emit carbon dioxide.

In October 2011, the National Development and Reform Commission of the People's Republic of China announced the Notice on Initiating Pilot Emissions Trading Programs, which approved Beijing, Shanghai, Tianjin, Chongqing, Hubei, Guangdong, and Shenzhen to initiate pilot emission trading programs. Over the past two years, Shenzhen has actively initiated studies and practices relating to emission trading, completing institutional designs, data checks, quota allocation, and building construction. On June 18, 2013, Shenzhen was the first of the seven provinces to launch the Carbon Emission Trading Market. In response, ZDT's manufacturing site in Shenzhen undertook a series of energy-saving and carbon-reducing projects, which gained the recognition of the local government, rendering us one of the first companies in China to adopt the pilot emission trading program.

To mitigate global warming, reduce the operational risks resulting from climate change, and simultaneously improve the effectiveness of our “Seven Greens” culture, we continue to devote our efforts to saving energy, reducing emissions, recycling, and making our operations greener. By adopting all types of methods to reduce the use and consumption of energy resources, we took a series of action to save the use of energy in our manufacturing sites. These actions include introducing permanent magnet motors, replacing ice-water machines with cool water recycling board (winter), improving borehole dust collector, introducing insulated coating, and reusing RO concentrated water in cooling tower, among other measures.

In total, 5,106 tons of CO<sub>2</sub> were saved. Our major energy saving plan for 2019 is described below. By introducing energy-saving technologies, we were able to save roughly 34,485 GJ of electricity in 2019 and emit 5,106 tons less CO<sub>2</sub> compared to 2018. We primarily reduced Scope 2 emissions.

#### Major Energy Saving Plan and Performance

Major Energy Saving Plan	Description	Environmental Performance
Introducing permanent magnet motors	Increase energy efficiency of magnet motors	Can save roughly 5,176 GJ of electricity compared to traditional equipment $1,438,000\text{kWh} \times 0.533/1000 = 766.45 \text{ tCO}_2\text{e/year}$ emissions reduced in 2019 compared to 2018
Replacing ice-water machines with cool water recycling board (winter)	Replace ice-water machines with cool water recycling board in winter to reduce energy consumption of ice-water machines	Can save roughly 648 GJ of electricity compared to traditional equipment $180,000\text{kWh} \times 0.533/1000 = 95.94 \text{ tCO}_2\text{e/year}$ emissions reduced in 2019 compared to 2018
Improving borehole dust collector	Modify the feeding opening of borehole dust collector to vacuum feeding opening to save electricity	Can save roughly 617 GJ of electricity compared to traditional equipment $171,360\text{kWh} \times 0.533/1000 = 91.33 \text{ tCO}_2\text{e/year}$ emissions reduced in 2019 compared to 2018
Introducing insulated coating	Coat furnaces with insulated coating to reduce the dispersion of heat, thereby saving electricity	Can save roughly 216 GJ of electricity compared to traditional equipment $60,000\text{kWh} \times 0.533/1000 = 31.98 \text{ tCO}_2\text{e/year}$ emissions reduced in 2019 compared to 2018
Reusing RO concentrated water in cooling tower	Recycle RO concentrated water back to cooling tower, which reduces the pumping of RO water, thereby saving electricity	Can save 222 GJ of electricity $61,700\text{kWh} \times 0.533/1000 = 32.89 \text{ tCO}_2\text{e/year}$ emissions reduced in 2019 compared to 2018

\*Note:  
Annual carbon reduction = Electricity consumption \* 0.533kg CO<sub>2</sub>/kWh, where 0.533kg CO<sub>2</sub>e is China's emission coefficient for electricity of 2018.

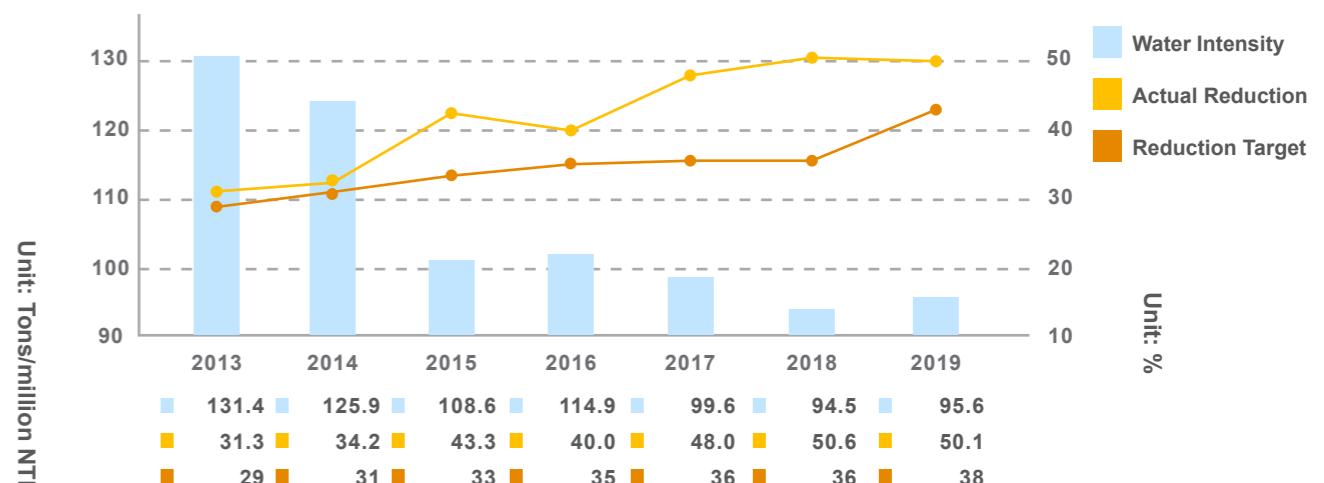
#### Energy Saving Plan Description: Energy-saving Permanent Magnet Motors Technology

ZDT has implemented energy efficiency improvement projects in manufacturing sites to build a green supply chain that is friendly to both the earth and its environment and become an industry-leading green benchmark company that produces environmentally friendly and energy-efficient technological products for customers. Energy-consuming motors of level three and below in our manufacturing sites can no longer meet the Company's needs for the production of green technological products; therefore, the Company has introduced energy-saving permanent magnet motors to the Shenzhen site for testing. Permanent magnet motor uses permanent magnets rather than windings. Compared to induction motors, permanent magnet motors do not need to produce electric current and do not experience copper loss, iron loss, rotor loss, and wear and tear because of the presence of permanent magnet. Furthermore, permanent magnet motor is characterized by stable unit operation, long service life, low noise, compact size, and easy installation, making it beneficial for the long-term operation and maintenance of equipment that uses it. Currently, the Shenzhen site has tested permanent magnet motors and found that it can save up to 16% of energy, demonstrating significant green efficiency. Once we are finished with assessments at each of our sites, we will promote this technology across all manufacturing sites and continue to strengthen various energy-saving technologies to bring ZDT to the next level of green production!

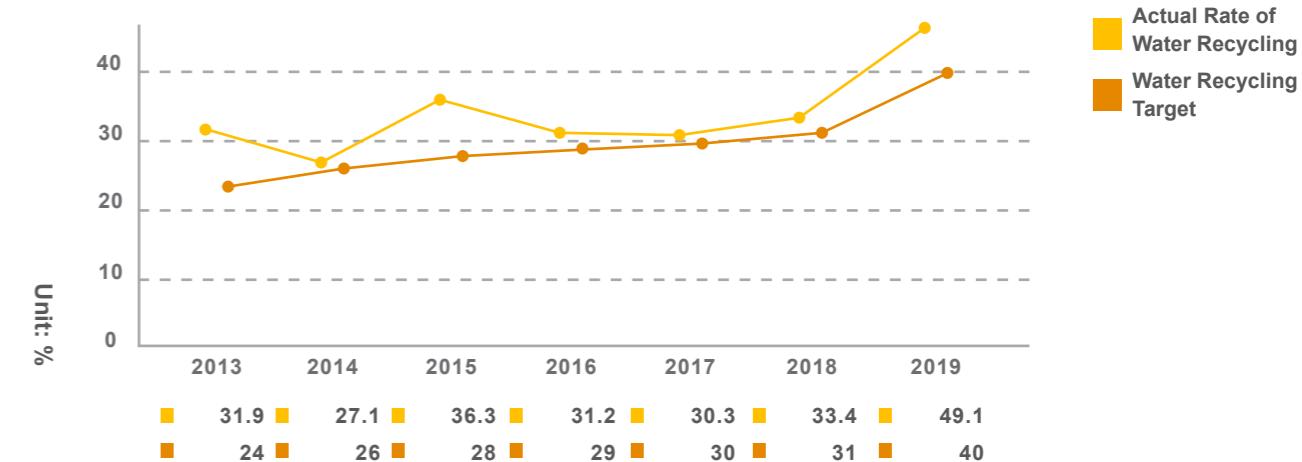
## 3-3 Water Resource Management

The frequent occurrence of climate change and extreme weathers in recent year has put waters resources at risk of shortage and contamination. Therefore, one of the key focuses in corporate management is managing water resources effectively and improving water recycling technologies to prepare for the oncoming pressure on the water environment. Given our characteristics as a PCB industry, ZDT has introduced a number of water-saving measures to our manufacturing and production processes to minimize the risks of water consumption through management at the source and optimization at the end. By engaging in technology innovation, we continue to increase wastewater recycling rate, and improve the efficiency of water resources.

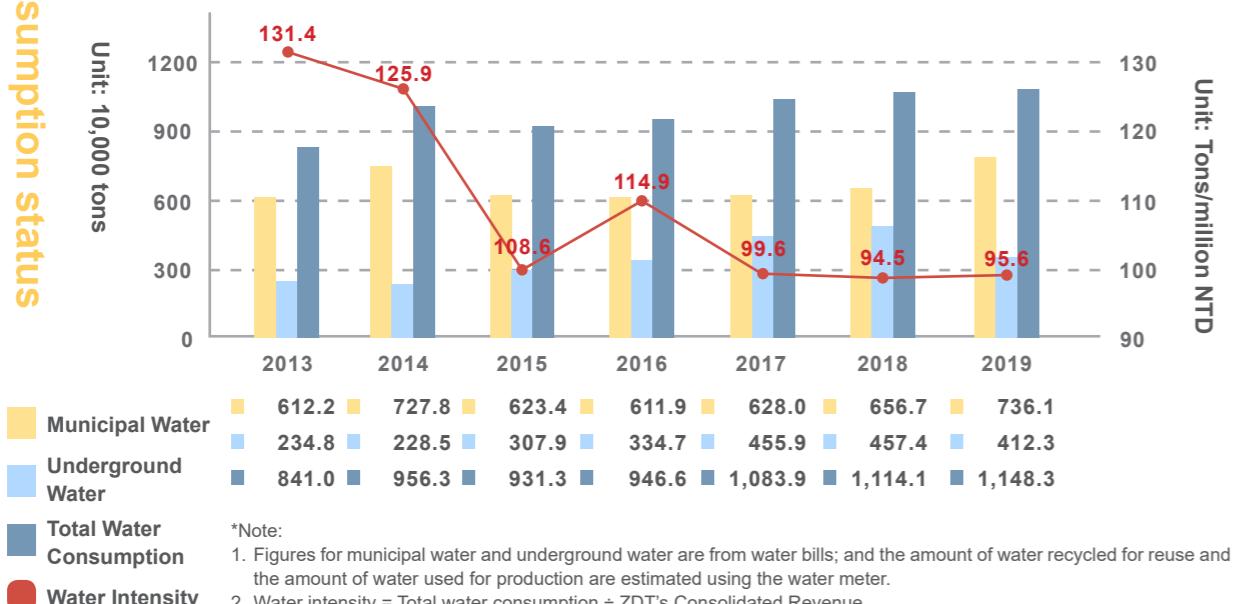
Regarding water management, the Company sets annual targets for its water intensity and water recycling rate. The targets are allocated to each departments through the Seven Greens culture; subsequently, monthly/quarterly reviews and annual reports are conducted to review the target achievement status and implement improvements. The water intensity target for 2019 was a reduction of 38%, and a reduction of 50.1% was actually achieved; the water recycling rate target was 40%, and 49.1% of water was actually recycled. Both targets were achieved. Thereafter, the Company will constantly increase its target value to impose a stricter management on water. The charts below shows the annual targets for water intensity and water recycling, and the values actually achieved.



\*Note:  
1. Water intensity = Total water consumption ÷ ZDT's Consolidated Revenue.  
2. Reduction percentage is based on water intensity of 191.4 tons/million NTD in 2011, which is also the year in which the 12th Five-Year Plan was implemented.

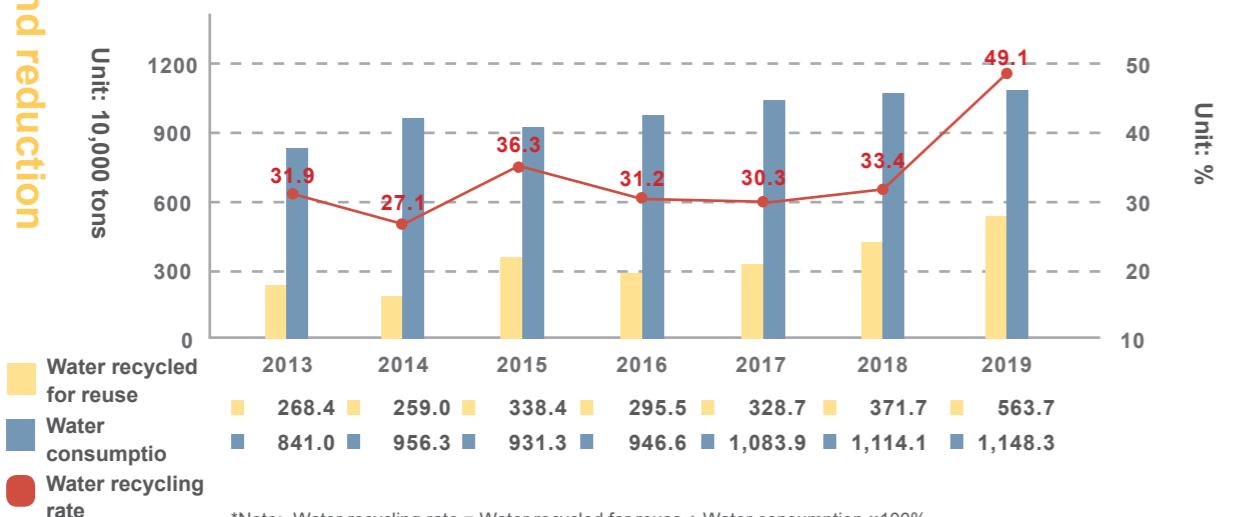


In 2019, ZDT and its major manufacturing sites used a total of 1148.3 million tons water, including municipal water and underground water. The intensity of water consumed was 95.6 tons/million NTD. ZDT's manufacturing sites have a sufficient supply of water, which comes from water companies and water treatment plants. In addition, the manufacturing sites are built with a reservoir so that when water shortage occurs, the reservoir can guarantee 12 to 24 hours of normal operation. The chart below shows the company's use of water resources over the years.



**Note:**  
1. Figures for municipal water and underground water are from water bills; and the amount of water recycled for reuse and the amount of water used for production are estimated using the water meter.  
2. Water intensity = Total water consumption ÷ ZDT's Consolidated Revenue.  
3. Source of Municipal Water:  
Shenzhen: Shenzhen Baoan Water Affair Group Limited Company (Shenzhen Water Company, Yanchuan Luotian Water Plant)  
Qinhuangdao: China Energy Conservation Taisheng Qinhuangdao Water Affair Limited Company (Qinhuangdao Development Zone Taisheng Water Affair Limited Company)  
Huai'an: Huai'an Water Limited Company (Huai'an Economic Development Zone Water Plant)  
Yingkou: Yingkou Water Affair Limited Company (Sixth Water Plant of Yingkou Water Affair Limited Company)

PCB industries require massive amounts of water for their production processes. To effectively reduce the environmental impact of the company, we have introduced high-performance water recycling equipment to process wastewater for use based on the requirements of water usage sites. Water is recycled for reuse in production, environmental cleaning, and irrigation. In 2019, the Company has engaged in multiple water recycling projects, such as recycling of reverse osmosis (RO) water from cooling towers, recycling of recyclable wastewater, and war horse water-saving projects. The amount of water recycled by manufacturing sites has surpassed the regulatory requirements of local governments. By practicing water-saving management and introducing water recycling technologies, the Company has recycled roughly 5.637 million tons of water in 2019, which is 49.1% of the water used. The chart below shows the amount of water recycled by the Company and the water-saving plans it has implemented over the years.



### Water Saving Plans

Location of Each Sites	Water Saving Plans	Description
Shenzhen	Reduce overflow	Improve five sandblasting lines to reduce overflow and recycle used water.
	Improve the flow of sandblasting lines	Increase overflow control of inclined water washing tank, and modify program to reduce water consumption while ensuring normal production.
	Improve pre-treatment overflow	Before improvement, water must be replenished for pre-treatment line cleaning; after improvement, water does not need to be replenished for pre-treatment line cleaning.
	Save water by changing the frequency of DES maintenance	Change the frequency of DES maintenance; before improvement: Once a week. After improvement: Once every eight days.
Qinhuangdao	Reuse recyclable wastewater	After recyclable wastewater is pH-adjusted through a pre-treatment system, it forms flocculated sludge, which is then filtered through TMF to remove suspended solids and meet the water requirement of the RO system. The RO system uses physical stress and the semi-permeability of the RO film to treat the water by effectively removing inorganic ions, colloidal substances, and large molecules in the water. At this point, the quality of the filtered water meets requirement for use as filtered water.
	Save water by improving the electrical conductivity of pre-treated solder mask line water inlet	Before improvement: The conductive unit of the pre-treated solder mask line water inlet is incorrectly positioned, causing the electrical conductivity to exceed the normal range. As a result, water for the production line would be replaced unnecessarily, causing wastage of water resources. After improvement: The conductive unit is placed in a better location that generates normal readings, thereby avoiding unnecessary water wastage.
	War horse water-saving projects	Without influencing production quality, the standby time of water/power-saving mode is prolonged.
	Reuse RO concentrated water in cooling tower	Without influencing production quality, RO concentrated water is reused in the cooling tower to increase water recycling rate.
Huai'an		
Huai'an Comprehensive Bonded Zone		

### 3/ Water resource management and disclosure

### 3 Environmental Protection for the Benefits of the Society

#### Participation in CDP Water Program

Freshwater resources on earth that are available to humans have fell below 1.2%. The United Nations predicted that there will be a 40% shortfall in freshwater resources by 2030. The World Economic Forum's 2016 Global Risk Report (GRR) has ranked water crises the greatest risks to the society in the next ten years. Therefore, how to use water correctly and manage water resources well is a project that companies should engage in. The CDP hopes that through the Water Program, companies will be made more aware of the water crises and effectively manage their use of water by disclosing their water risks. The CDP Water questionnaire asks questions about the company's water usage situation, water risk assessments, water-related target settings, and water governance problems. It helps us to manage our water usage comprehensively by disclosing past, present, and future data and disclosing information on the water usage of our upstream suppliers and downstream customers. The Company has participated in the CDP for seven years in a row. We completed the water security questionnaire for the second time in 2019. We received a B rating on the 2019 water security questionnaire, which is higher than the average in Asia and the industry. In future, we will continue to ramp up our efforts in water resource management and fulfill our duties and obligations in water resource management.



#### Alliance for Water Stewardship (AWS)

The AWS International Water Stewardship Standard Version 1.0 published in April 2014 during the UN CEO Water Mandate conference is the world's first water management system standard. The AWS has sought for public opinions multiple times through the AWS International Water Stewardship Standard Version 1.0. Following two years of review and revision, the AWS International Water Stewardship Standard Version 2.0 was announced on March 22, 2019. The AWS Standard follows the principle of system management and offers a complete set of evaluation projects, indicators, and technical guidelines to help water-using organizations to build an effective water management system. The Standard employs systematic management methods to reduce the consumption of water resources, increase water efficiency, and reduce the impact of pollutant emissions on the environment, and provides a systematic approach to realizing water-saving and emission-reducing measures and technologies in practice within site and catchment contexts.

In 2019, we began preparing for the implementation of the AWS Standard by disclosing information relevant to water, formulating, executing, and evaluating water-related plans to complete sustainable water management and effective use. Our Shenzhen manufacturing site is the first in the industry to have completed the AWS certification at the end of 2019 and it is expected that Huai'an and Huai'an Comprehensive Bonded Zone will simultaneously obtain AWS certification in 2020. Furthermore, we are committed to completing sustainable water management and a transparent water disclosure system. China has enforced the Soil Pollution Prevention and Control Law in 2018. In response, our manufacturing sites have taken the initiative to test their soil and underground water environments. In future, we will conduct these tests twice every year, and present the results to members of the public.

#### The Performance of AWS-Adopting Manufacturing Sites

Since 2007, the Shenzhen site has continuously implemented numerous water management enhancement projects. In 2016, the China Ministry of Industry and Information Technology gave the Company the title "Green Factory" for green manufacturing companies. The Company has also received environmental credit ratings by multiple provincial governments of Mainland China, including the Green Brand Enterprise, the 2009 and 2010 Advanced Group in Shenzhen's Water Conservation Tasks in 2010, and the Shenzhen Water Conservation Construction Award and the Advanced Water Conservation Unit in 2013 and 2016 respectively. The Shenzhen site has been recycling and reusing water since 2013, and this trend has grown by 25.1% in 2019 compared to 2018. In 2019, the Shenzhen site took the lead in adopting the world's only sustainable water management standard (the AWS) in order to practice green manufacturing and continue to use and manage water resources more effectively. With the support of our customers and the concerted efforts of our employees, the Shenzhen site received the AWS Platinum Certification in December 2019, making us the first PCB company in the world to receive the AWS Platinum Certification. We believe that this highest level of recognition is not the end but a whole new beginning. ZDT will invest more efforts to our commitment to sustainable water management. We will persevere and continue moving forward to setting an unprecedented example of water resource management for other companies.



#### Water Recycling in Shenzhen Site



## AWS Performance of Shenzhen Site

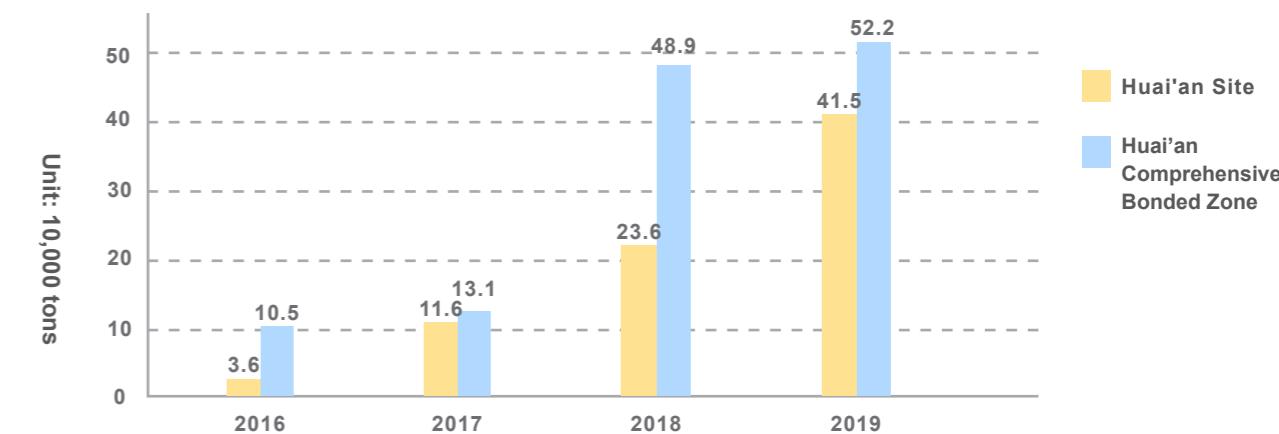
Goal	Achievement	Time of Completion
Implement AWS project to improve water management and capability and obtain the highest certification level	Received Platinum Certification in 2019	2019/12/11
Improve understanding on indirect use of water by supply chains by: Inspecting major suppliers and service providers and completing comprehensive risk assessment	Distributed questionnaires to 86 suppliers (71 responded, for a response rate of 82.56%), and completed one supplier risk assessment	2019/4/30
Hold environmental awareness activities to raise the environmental awareness of employees and the general public	Cooperated with the Luotian Community in Yanchuan, Shenzhen and Biaoshang School to host the Green School Day between April 22 and June 5. Meanwhile, more than ten awareness activities were held within the vicinity of the manufacturing sites. Roughly 4,500 people had participated, and over 500 works received, of which 295 were rated as outstanding. Hundreds of booklets have been produced and distributed to provide details on these activities.	2019/7/31
Devise peripheral water quality monitoring plans to improve understanding on the water environments around the company	Obtained 12 sets of monitoring data in 2019, which showed that 100% of the Company's discharge achieved the goal.	2019/12/31
Determine the manufacturing sites' soil and underground water quality	Designated 19 points of measurement around the manufacturing sites and 4 underground water monitoring wells, and completed and issued a report on suppliers' current soil and water quality status in 2019	2019/8/31
Reduce water consumption and wastewater discharge	Adopted improvement projects such as recycling heavy metal wastewater, to increase recycling rate; added new water recycling equipment such as MCR and RO to improve the quality of recycled water. As of December 2019, the Shenzhen Site recycled 53.5% of its water.	2019/6/1~2020/6/30
Set internal control target of 80% for the quality of discharge to ensure water quality and achieve target	As of December 2019, the average concentration of discharge was controlled well within the 80% target, the average volume of discharge was about 4,000T, meaning that total discharge was effectively controlled.	2019/12/31

\*Note: Water consumption and wastewater discharge were reduced between June 1, 2019 and June 30, 2020. We will continue to do so in 2020.

Our Huai'an Site commenced operation in 2016. It was rated as a "Green Factory" of Green Manufacturing Companies in 2017 by the the China Ministry of Industry and Information Technology. The Huai'an Site and Huai'an Comprehensive Bonded Zone successively received honorary titles: Water-Saving Enterprise in Jiangsu Province, Water-Saving Enterprise in Huai'an City, and Huai'an Leader in Water Efficiency. Since commencing production, the Huai'an Site has been recycling and reusing water. To practice ZDT's sustainable water management, the Huai'an Site initiated a preliminary AWS assessment in November 2019, and at the same time, our Huai'an Comprehensive Bonded Zone also began planning to apply for AWS certification. While upholding the vision of protecting the environment for a greener earth, we also incorporate advanced water recycling technologies and high-performance environmental facilities, cultivate technologists, and endeavor to maximize water efficiency. We have never stopped making efforts to managing water resources and fulfilling our corporate social responsibilities.



## Water Recycling in Huai'an



## 4/ Wastewater discharge

Our strategy for wastewater management is: recycle and reuse, to reduce our consumption of and dependence on tap water. PCB production requires massive amounts of water, electricity, and chemicals. Moreover, the characteristics of wastewater generated from these processes and the procedures required to treat these wastewater are complicated. Therefore for each product manufacturing step and the characteristics of the pollutants it produces, we classify the source of effluents into 25 categories. Based on the characteristics of wastewater generated from producing different types of products in the manufacturing sites, we have designed ten main treatment systems integrating high-efficiency equipment, multi-stage treatments, 3-dimensional designs for various processing units, and smart central control systems to monitor the operating status of wastewater recycling facilities and the quality of wastewater recycled. The quality of wastewater recycled by our subsidiaries over the year is stable and meets requirements. The table below shows the monitoring data for 2019.

## Results of monitoring the quality of effluents in 2019

Location of Each Site	Items Tested	Regulatory Standards	Test Results			Compliance with Standards
			Minimum	Average	Maximum	
Shenzhen	Hydrogen ion concentration (pH)	6-9	6.82	7.47	7.86	Compliance
	Chemical oxygen demand (COD)	160	38	64	103	Compliance
	Copper ion (Cu)	1.0	0.12	0.24	0.36	Compliance
Qinhuangdao	Hydrogen ion concentration (pH)	6-9	7.34	7.61	8.07	Compliance
	Chemical oxygen demand (COD)	400	74	108	171	Compliance
	Copper ion (Cu)	0.5	0.00	0.09	0.24	Compliance
Huai'an Comprehensive Bonded Zone	Hydrogen ion concentration (pH)	6-9	6.68	7.23	7.93	Compliance
	Chemical oxygen demand (COD)	400	44	104	193	Compliance
	Copper ion (Cu)	2.0	0.00	0.05	0.21	Compliance
Huai'an	Hydrogen ion concentration (pH)	6-9	7.14	7.62	8.14	Compliance
	Chemical oxygen demand (COD)	400	30	67	147	Compliance
	Copper ion (Cu)	2.0	0.00	0.04	0.11	Compliance
Yingkou	Hydrogen ion concentration (pH)	6-9	7.00	7.57	8.20	Compliance
	Chemical oxygen demand (COD)	300	32	83	171	Compliance
	Copper ion (Cu)	2.0	0.00	0.23	0.43	Compliance

\*Note: The Yingkou site did not conduct tests in the fourth quarter; the above data were only those of the first three quarters.

Each wastewater treatment plant at the manufacturing sites is equipped with a professional water quality laboratory for designated personnel to review the water quality in the wastewater treatment system on a daily basis. Each of our wastewater effluent outlet is equipped with an online water quality/water volume monitoring device. The data produced are linked to environmental protection agencies for comprehensive 24-hour monitoring. This is to ensure that all types of effluent are discharged in accordance with standards. Effluents generated from manufacturing sites are discharged into municipal wastewater treatment plants of local government authorities and are not reused by other organizations. The Chart below shows data regarding the industrial wastewater discharged by the Company's subsidiaries over the years.



## 3-4 Clean Production

## 1/ Clean Production Plans and Certification

The Company actively adopts Taiwan and China's clean production laws and clean production standards for the PCB industry. In 2010, our subsidiaries began taking initiative to implement clean production review and introduce the Company's environmental management concept to manage emissions at the source and end. Our goal is to surpass the level one clean production standards. To date, we have launched multiple clean production initiatives for improving our manufacturing processes, to not only cut down the use of materials but also lower production costs, thereby bolstering the Company's green competitiveness. The table below summarizes the process improvement plans adopted by our subsidiaries and their performance.

## Process Improvement Plans and Performance

Location of Each Site	Plan	Description
Shenzhen	Introducing permanent magnet motors	Increase energy efficiency of magnet motors and improve energy efficiency.
	Improving the speed of lamination copper reduction	Shorten feeding time and increase production efficiency: Before improvement, feeding is done once every 23 s; after improvement, feeding is done once every 18 s.
	Improving the speed of RTR copper reduction	Increase the speed of RTR copper reduction to save electricity without affecting product quality.
	Simplifying FCETS product processes	Eliminate the AOI test before FCETS product disassembly to reduce energy consumption without affecting product quality.
	Improving the energy conservation of UV machines	Replace halogen lamps with dual-side energy-efficiency LED lights to reduce the power required to run equipment.
	Shortening pressure transmitting CT	Shorten the CT of pressure transmission to improve production capacity and reduce mechanical inputs.
Huai'an	Replacing factory lighting	Replace 18W lights in the factory with 10.5W lights to reduce energy consumption.
Huai'an Comprehensive Bonded Zone	Increasing the number of drilling stack-up layers	Optimize drilling parameters and increase the number of stack-up layers from 1 to 3.
	Increasing the frequency of cutting dust-collecting roller papers for outer layer lamination	Originally, the frequency of cutting dust-collecting roller papers for outer layer lamination is 30 pnL/time; after the outer material use frequency is changed, the frequency of cutting dust-collecting roller papers for outer layer lamination is 60 pnL/time.

## 2/ Air pollution control

## Air Pollution Treatment Mechanism and Emissions

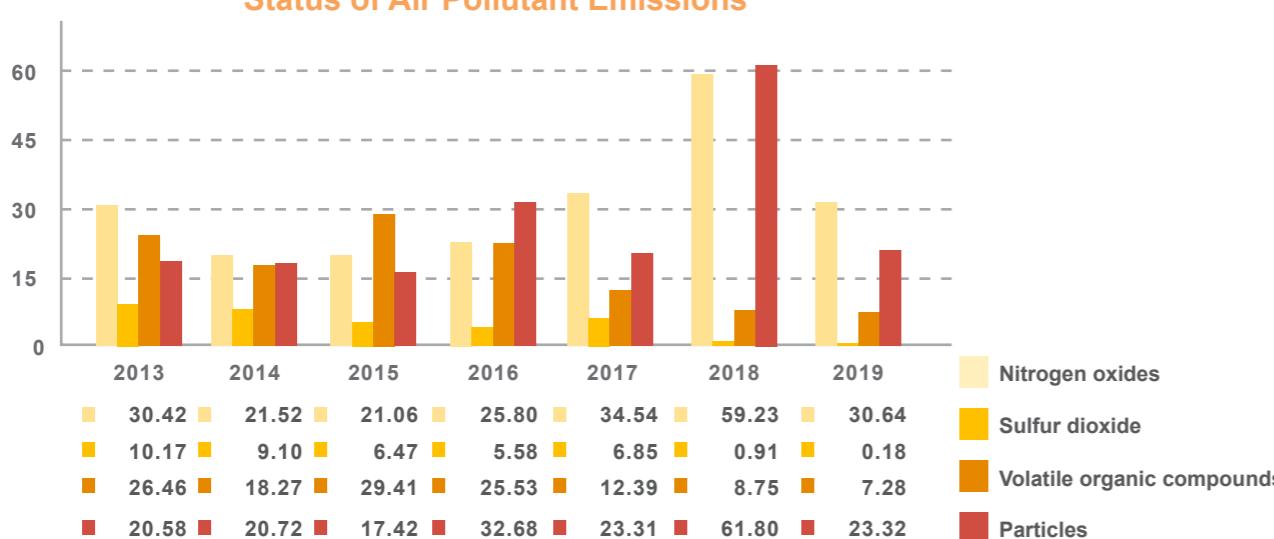
Air pollutants emitted by ZDT's subsidiaries primarily include nitrogen oxide, sulfur dioxide, particulate matters, and volatile organic compounds (VOCs), which are generated from our manufacturing processes. However, we introduce innovative technologies integrated with waste gas scrubber, dust collector, and activated carbon to reduce the emission of air pollutants. Every year, we regularly employ external institutions to conduct tests and continue to track various pollutant monitoring data to ensure that our gas emissions are compliant with law and kept within the emission standards. The chart below shows the air pollutant emission data of the Company's subsidiaries over the years.

## 3 Environmental Protection for the Benefits of the Society

## 3/ Waste management

Our strategy for waste management is to generate harmless wastes, reduce wastes, and recycle them if possible. Because the PCB production process generates some dangerous wastes, which if not properly disposed of will pose danger to the environment and the human body. For this reason, we have set up dedicated waste treatment unit in the manufacturing sites and implemented a Total Waste Management program across the sites. A project manager and a small group of employees are designated to represent their manufacturing sites and work with the Office of Environmental Protection and Energy Conservation to sort and manage wastes, establish waste management transport procedures, and carry out these procedures accordingly.

Moreover, we have also established a panel of environmental experts to develop innovative resource recycling technologies that constantly add value to recycled wastes, thereby minimizing the environmental impact of pollutant emissions. Presently, our wastes are classified into recyclable industrial wastes, non-recyclable industrial wastes, and hazardous wastes.



## \*Note:

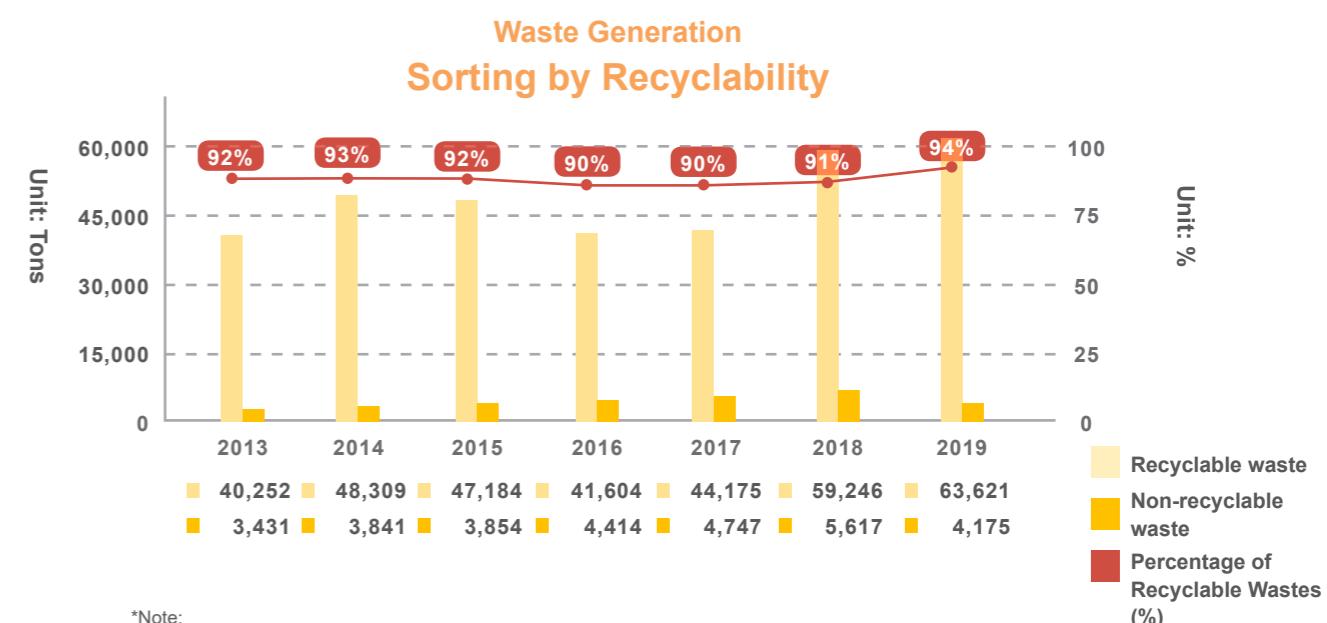
- Emission of air pollutants is calculated as follows: Emission = Velocity × 24 hours × Number of days of emission in a year, where velocity is manually tested by an external agency.
- The level of nitrogen oxide increased in 2018 because production output increased and calculation method changed; however, the emission concentration still conformed to environmental regulations. Particulate matters increased because the Yinkou site used a different method to monitor its particulate matters and changed the concentration of its particulate matters to <20, which was rounded off to 20 for emission calculation.

Our wastes are sorted and collected at the beginning of the production line. Take Shenzhen as an example, wastes are classified into 69 categories. Resources are fully recycled to create value. Waste that cannot be recycled is contracted to licensed professional contractors for processing. We also promoted multiple waste reduction technologies, which enabled us to recycle more than 90% of our wastes. However, due to stringent environmental laws, some wastes are categorized as hazardous wastes instead of general wastes, causing the intensity of hazardous wastes generated per unit revenue to be the same as that in 2018. The major business locations of our subsidiaries generated a total of 38,796 t of hazardous waste in 2019, registering a hazardous waste intensity of 0.32 (t/million NTD)<sup>(Note)</sup>.

## \*Note:

- Intensity of hazardous waste = Total hazardous waste generated ÷ ZDT's consolidated revenue
- Hazardous wastes from Huai'an and Huai'an Comprehensive Bonded are calculated by multiplying the unit weight of an empty container by the number of trips made to transport wastes.

The diagram below shows the wastes generated by the Company over the years, and how subsidiaries dispose of their hazardous wastes:



## \*Note:

- Wastes are disposed of by certified waste disposal companies.
- General wastes are disposed of by recycling for reuse, recycling other active ingredients, and recycling for use as fertilizers or soil remediation agents.

### Disposal of Hazardous Wastes

Action taken	Shenzhen	Qinhuangdao	Huai'an Comprehensive Bonded Zone	Huai'an	Yingkou	Total
Recyclable	13,028.36	1,851.01	3,949.90	1,169.56	425.81	20,424.64
Incineration	1,400.97	1,434.33	354.12	277.94	625.80	4,093.16
Burial	/	/	/	/	1,116.59	1,116.59
Chemical treatment	2,532.37	9,790.94	519.03	318.79	/	13,161.13

Unit: Tons

\*Note:

1. The table details how each manufacturing site disposed of its hazardous wastes in 2019.
2. Disposal of hazardous waste is determined by the property of waste and local environmental laws.

China has provided numerous investment incentives in the past to encourage foreign companies to set up plants in China. These investments have powered the country's economic growth but at the cost of the environment. Therefore, the Chinese government has imposed stricter environmental protection regulations in recent years and increased the level of implementation while imposing rigid controls over the issuance of wastewater effluent licenses. Because large amounts of water and chemical substances are required in the manufacturing of PCBs, effluent and waste would impact the environment if they are not properly processed.

On January 1, 2019, China enforced the Soil Pollution Prevention and Control Law, its first set of laws for preventing soil pollution. In January, the Pilot Work Plan for the Construction of "No Waste City" was printed and distributed. The plan serves to steadily promote the pilot work of building a "no waste city". In March 2019, the Technical Specification for Application and Issuance of Pollutant Permit - Electronics Industry (Opinion Seeking Draft) was announced. In June, the Ministry of Housing and Urban-Rural Development announced that every Chinese city at the prefecture level and above must practice garbage sorting. In July, the Regulation of Household Waste Management of Shanghai was enacted, and the second round of the first batch of China's ecological environmental protection supervision was launched. In November, the Ministry of Housing and Urban-Rural Development released the classification signs for municipal solid waste. In 2020, the Chinese government intends to promote garbage sorting nationwide and achieve the goal of building household garbage processing systems in 46 cities by 2020.

China's Ministry of Ecology and Environment has imposed increasingly heavy penalties on violations of environmental laws, mandating that companies must conserve energy, reduce emissions, and lower consumption. These policies will inevitably generate a short-term impact on the PCB industry, compelling small and medium businesses or non-conforming manufacturers to cease their production operations.

To improve employees' knowledge on environmental and energy laws, the Company's subsidiaries have tasked the supervisors of environmental and legal units with providing training and educational courses on environmental protection and energy conservation to employees. These courses cover information on laws relevant to the environment such as air, water, waste, soil, and toxic and hazardous substances, procedures for reporting environmental activities, and practical training on auditing skills. The purpose of these courses is to implement a PDCA model in environmental management and increase personnel's experience and capabilities in environmental protection and energy conservation. Thus, employees could serve the company with greater expertise and ensure that the company meets environmental requirements.

In addition, we constantly introduce high-performance equipment and technologies to recycle more wastewater without generating more wastes. We also continuously optimize processes and actively promote our Seven Greens culture, to not only keep pace with global trends and environmental laws in Taiwan and China, but also fulfill our corporate social responsibilities.

The Company's manufacturing sites have acquired legitimate permits and licenses relevant to environmental operations. Various environmental and energy conservation tasks are steadily and effectively carried out on ZDT's Seven Greens platform. Since their establishment, our subsidiaries have never been sanctioned for environmental violations.

## 3-5 Environmentally Friendly Services and Promotion

### 1/ Low-Carbon Transportation

ZDT's Seven Greens is our key strategy and platform for promoting environmental and energy-saving activities. We analyze all aspects of production and general usage and examine methods and practices of improving our environmental efforts (e.g., energy conservation, emissions reduction, efficiency improvement, consumption reduction, greenification, and recycling) in order to implement them in our daily lives or at work.

Specifically, transportation is an aspect of "green operations". We believe that energy conservation and environmental protection are equally important as employees' travel safety; therefore, we provide scheduled electric-powered shuttles to pick up/drop off employees from/at large crowded areas during rush hours. Each year, we perform monthly review of the rate at which materials are combined and transported together to reduce the emission of waste gas during the transportation of goods. In 2019, we were able to save more than 848,000 L of gasoline and diesel by transporting materials together and offering employees a mode of transport. In future, we will continue to improve cargo loading efficiency, increase modes of green transportation for employees, and offer more shuttle time options to encourage employees to travel in green style and play a part in reducing CO2 emission for earth.

### Combined Transport of Manufacturing Sites

Manufacturing Sites	Plan	Environmental Impact	Description
Shenzhen	Increase rate of combined transport	Reduce use of fuel (gasoline)	By integrating the needs for goods transport, the Company combined goods and transported them together to reduce the overall number of trips. In 2019, we needed to make 3,912 trips and actually only made 1,741 trips, a reduction of 2,171 trips.
Qinhuangdao	Increase rate of combined transport	Reduce use of fuel (gasoline)	By integrating the needs for goods transport, the Company combined goods and transported them together to reduce the overall number of trips. In 2019, we needed to make 5,532 trips and actually only made 2,740 trips, a reduction of 2,792 trips.
Huai'an Comprehensive Bonded Zone	Increase rate of combined transport	Reduce use of fuel (gasoline)	By integrating the needs for goods transport, the Company combined goods and transported them together to reduce the overall number of trips. In 2019, we needed to make 1,073 trips and actually only made 935 trips, a reduction of 138 trips.
Huai'an	Increase rate of combined transport	Reduce use of fuel (gasoline)	By integrating the needs for goods transport, the Company combined goods and transported them together to reduce the overall number of trips. In 2019, we needed to make 4,389 trips and actually only made 2,420 trips, a reduction of 1,969 trips.

## 2/ Environmental Protection Month events

## 3 Environmental Protection for the Benefits of the Society

Since 2007, ZDT has held environmental activities in its manufacturing sites during the period from April 22 (Earth Day) to June 5 (World Environment Day) every year. This year, 2019, marks the 12th time the event is held, with participants including ZDT employees, members of the public, governmental departments, schools, and environmental groups. In total, 36,220 people had participated, which shows that these activities were well-received by each and every one of our employees and members of the public. By hosting all types of internal and external awareness activities, we attempt to raise people's environmental awareness, translate ZDT's Seven Greens idea into corporate social responsibilities, and take actions to realize ZDT's unique new green value.

## 2019 Environmental Protection Month events

## A Summary of Environmental Activities in Manufacturing Sites

Location of Each Site	Event Name	Participating Unit/Personnel
Shenzhen	Waste classification evaluation	ZDT employees
	Employee environmental knowledge training	ZDT employees
	Poster exhibition in manufacturing sites	Students and teachers from Biaoshang School
	Green School Day opening ceremony	Students and teachers (30 in total) from Biaoshang School
	Visiting Yanchuan Wastewater Treatment Plant	Luotian Community in Yanchuan, students and teachers from Biaoshang School
	Visiting the Yanchuan Luotian Wetland Ecopark	Luotian Community in Yanchuan, students and teachers from Biaoshang School
	Green School Day closing ceremony	Luotian Community in Yanchuan, students and teachers from Biaoshang School
Qinhuangdao	Putting up environmental posters	ZDT employees
	Waste classification and transport competition	ZDT employees
	Visits by Yanshan University students	Yanshan University students
	Green School activity	ZDT employees, students and teachers from Guogaomafang School
	Conference with partners from around the world	Partners from around the world
Huai'an Comprehensive Bonded Zone and Huai'an	Environmental poster exhibition	ZDT employees
	School Environment Day: Talks on environmental protection	ZDT employees, students and teachers from Guangzhouli School
	Dragon boat event on World Environment Day (June 5)	Organized by the Ministry of Justice of People's Republic of China with the assistance of third environmental inspectors from provincial-level ecology and environment departments and city ecological civilization organizations
	Recycling used batteries	ZDT employees



Shenzhen



Qinhuangdao



3 Environmental Protection for the Benefits of the Society



Huai'an Comprehensive Bonded Zone and Huai'an



Yingkou

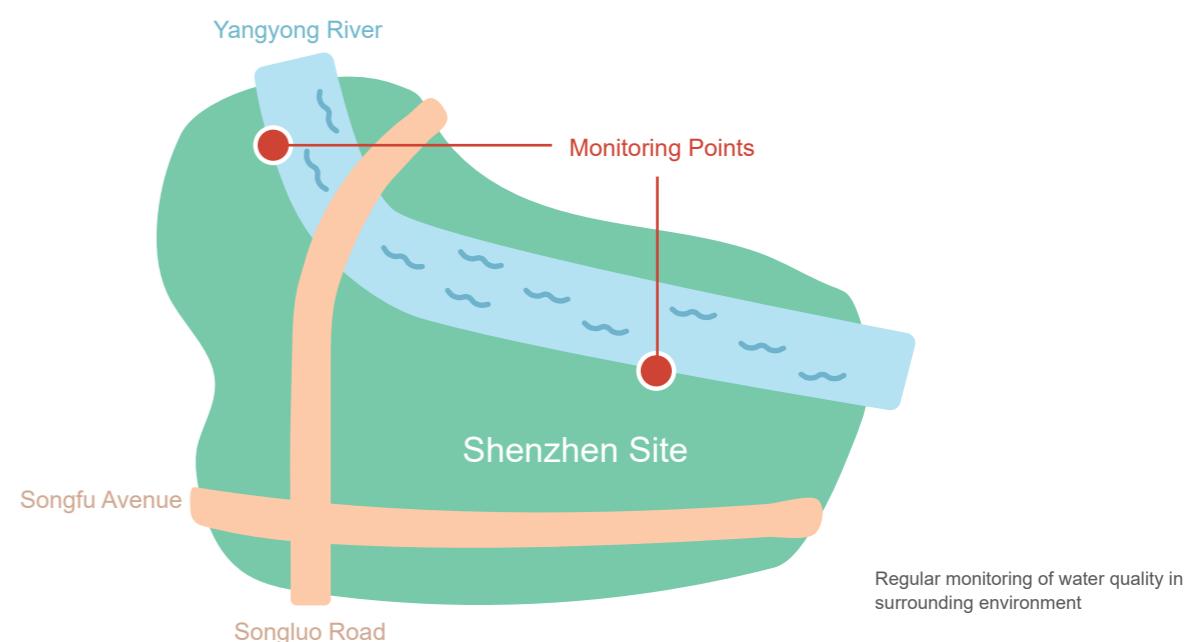


3/ Energy Conservation and Emission Reduction Conference

Since 2010, ZDT has hosted a conference every year during the Environmental Protection Month to encourage continuous improvement in green performances. In this conference, employees are encouraged to propose energy conservation and emission reduction ideas, which are presented by providing information on three topics: energy conservation, water conservation, and waste reduction. Top-performing proposals are rewarded and published in the Company's weekly publication. This conference offers different departments of the Company an opportunity to learn from one another. Over the years, representatives from each manufacturing site have introduced excellent improvement ideas. Through rewards and experience sharing, habits and methods of environmental protection and energy conservation can be integrated in the daily operations of grassroot employees.

4/ Environmental Protection Promotion

ZDT insists on contributing to the environment and society. Apart from organizing a series of activities during the Environmental Protection Month, we also play an active part in community care by joining forces with the government, schools, and communities to co-host environmental awareness activities. With the ecological environment always on our mind, we voluntarily conduct periodic monitoring on the quality of water within a 1 km radius of our manufacturing sites, and assist the governmental departments in solving problems experienced by municipal wastewater treatment plants. While staying committed to enhancing the green performance of ZDT, we continuously expand our power of influence to provide green ideal solutions to the government sector and play our part in social contribution.



# 4

## Employee Care & Talent Development



4-1 Employee Care

4-2 Talent Development

4-3 ZDT DNA

### Key Achievements

Total employee training expenditure  
in 2019 exceeded

**NTD 25 million**

Employees participated in and passed the  
safety awareness exam in 2019

**100%**

## 4-1 Employee Care

ZDT embraces a corporate culture in which we do not engage in things that render sleepless nights. Therefore, how to effectively implement and comply with laws and regulations is something that must be achieved by every ZDT employee and also ZDT's basic commitment to the society and sustainable operations.

ZDT strictly abides by Taiwan's Labor Standard Act and the laws and regulations of People's Republic of China, including the Labor Law/Employment Contracts Law/Social Insurance Law and Provisions on the Prohibition of Using Child Labor. On the foundation of a respect for internationally recognized labor human rights principles, the Company constructs a human resource management system that collectively applies to Taoyuan, Shenzhen, Huai'an, Qinhuangdao, and Yingkou to protect the legal rights of all employees.

In addition to self-discipline, ZDT also voluntarily complies with and regularly collects information on, assesses the social laws of competent authorities and customer requirements to ensure the legitimacy and appropriateness of these laws and requirements.

ZDT's internal departments must follow procedures relevant to internal control and internal auditing when performing the duties of the department so as to ensure compliance with regulatory requirements. Applicable departments periodically self-inspect the scope of their business operation as a means of internal control, and the audit department reviews and produces an audit report of the departments' internal control implementation status to ensure that the internal control operations of each department comply with law. In the event of violations, the department involved shall propose improvement plans immediately, and its actions re-reviewed by the audit department again to ensure the validity of the improvements made. To raise the compliance awareness of employees, the Office of Human Resources periodically organizes a course called "Business Rules" for new employees to instill the corporate ideal of doing the right thing in the minds of employees, thereby shaping a law-abiding corporate culture.

ZDT believes that "talent" is the key to corporate development. Therefore, the Company always insists on upholding the core values of "Integrity, Responsibility, Innovation, Excellence, and Altruism" and actively develops a system of recruiting, cultivating, hiring, and retaining talents. From cooperative education to the development of various expertise, general knowledge, management, and talents, we offer a comprehensive range of training and fostering programs to make our employees competent enough to grow and develop together with the company. Concurrently, we provide complete range of benefits and regularly hold different types of social, cultural, and health-promoting activities so that employees not only pursue personal achievements and development in the company but also enrich their spiritual mindset.



ZDT is committed to creating an equal and transparent job promotion channel that is independent of gender or age. The channel allows employees to be given the position and salary suitable to their professional background and personal career performance. However, due to the special nature of ZDT's production lines, product line employees are still mostly men. The percentage of self-employed workers at ZDT is 100%.

### Employees and Supervised Workers by Gender

Category	Male	Female
Employees	24,782	11,399
Supervised (Contract) Workers	0	0
Subtotal	24,782	11,399
Total	36,181	

### By Business Locations

Manufacturing Site	Male	Female
Shenzhen	9,097	4,162
Qinhuangdao	9,097	4,231
Huai'an	5,987	2,838
Yingkou	59	27
Taoyuan	542	141
Subtotal	24,782	11,399
Total		36,181

### By Age and Gender

Age	Male	Female	Subtotal
< 30 years	16,070	6,288	22,358
31–50 years	8,645	5,100	13,745
>51 years	67	11	78
Total	24,782	11,399	36,181

### By Gender and Age of Management (Management or Above)

Age/Type	Line Manager		Leader		Section Manager		General Manager		Total	
	Male		Female		Male		Female			
	Male	Female	Male	Female	Male	Female	Male	Female		
< 30 years	33	6	726	91	88	8	0	0	952	
31–50 years	22	7	701	138	480	117	476	72	2,013	
>51 years	0	0	1	0	0	0	40	9	50	
Total	55	13	1,428	229	568	125	516	81	3,015	

## 2/ Comprehensive Employee Benefits and Welfare System

ZDT provides a remuneration management system that is competitive externally and reasonable internally. To retain high-caliber professionals, the Company adopts a general remuneration strategy that places us at the top 30% of the industry to ensure that the company is sufficiently competitive in the market.

In addition to paying monthly salary, the Company also gives out various types of monetary rewards as a form of encouragement to boost morale when needed and retain well-performing employees. These rewards include year-end performance bonuses, bonuses for continuous services, employee bonus, and monetary rewards for innovative research and development and for proposing improvement ideas.

To keep the company's general salary offers competitive, the Office of Human Resources plans and reviews remuneration policies of the Company's manufacturing sites according to changes in the external economic environment. We also draft salary adjustment plans as needed by referring to the minimum wage policies of local governments, reviewing the salary survey reports provided by professional consulting companies, and measuring the salary levels of the local market where the manufacturing site is located. Employees' individual job performance is accounted for when adjusting their salary.

The Company determines the salary of new employees by considering the employees' educational background, work experience, and competency (years of seniority and level of expertise) without discrimination on the basis of gender, age, race, religion, marital status, disabilities, and political affiliation. In general, employees working at our manufacturing sites earn a salary that is higher than the minimum stipulated by the local government.



## ZDT Locations in China and Taiwan

## Provide Salaries and Benefits that are Superior to Local Standards

Category	Shenzhen	Qinhuangdao	Huai'an	Yingkou	Taoyuan
The minimum pay for entry-level male workers as a percentage of local minimum wage	100%	105%	109%	115%	156%
The minimum pay for entry-level female workers as a percentage of local minimum wage	100%	105%	109%	115%	156%
Local provisions regarding minimum wage	Shen-Ren-She-Gui [2018] No. 11	Ji-Ren-She-Zi [2019] No. 170	Su-Ren-She-Fa [2019] No. 102	Liao-Ren-She-Fa [2019] No. 59	Labor Standards Act

\*Note: Because Taiwan does not adopt entry-level employees, salary percentage is based on the minimum wage of engineers/managers.

## Salary expenses in 2019

Item	Total for 2019
Wages and salaries	13,356,823
Employees' remuneration (dividends)	75,057
Labor and health insurance fees	594,581
Pension expenses	1,068,954
Other personnel expenses	1,449,254
<b>Total</b>	<b>16,544,669</b>

Unit: thousand NTD

4-1  
Employee Care

Employees' benefits include special leaves (public holidays, paid annual leaves/marriage leave/bereavement leave/maternity leave/paternity leave, etc.), pension fund, labor and health insurance, and employee insurance (endowment/healthcare/occupational injury/child birth/unemployment insurance), as well as housing provident funds, as stipulated by applicable labor laws and regulations in the area of operation. Other additional benefits are provided by ZDT for the purpose of showing solicitude to employees and protecting their rights to work.



## Benefits and Applicable Region

● Applicable in Taiwan

● Applicable in China

● ● Year-end bonus/dividends	● Shuttle transportation
● ● Free annual health screening	● Entrance tickets to tourist destinations at discounted price
● ● Meal allowance	● Free accommodation
● ● Group insurance	● Free laundry service
● ● Gym facility	● Free Internet service
● ● Employee of the Year award	● Free recreational and entertainment facilities (Library/basketball/badminton/table tennis/movie theater/spinning/yoga/dancing/gym)
● ● Major festival Gifts	

The employee welfare measures for the Company's employees in Taiwan include the National Health Insurance, Labor Insurance, and labor pension systems required by the Labor Standards Act of the Republic of China. We also provide employees with group insurance to protect their related benefits. ZDT's group insurance in Taiwan includes a certain amount of term life insurance, accident insurance, hospitalization and medical insurance, cancer insurance, accident injury medical insurance, and occupational hazards insurance. In addition, employees' family members can also purchase the Company's group insurance with lower insurance premiums. Other benefits include birthday gift money, gift (money) for festivities, subsidies for relief funds, gift money for weddings, funerals, and childbirth, employee lotteries, annual health examinations, employee travel subsidies, business travel insurance, and related expenses.

The Company has established retirement and pension management regulations in accordance with the Labor Standards Act to take care of employees after retirement and improve their services during employment. The Company also established the Supervisory Committee of the Labor Retirement Reserve in accordance with regulations. The labor retirement reserve fund is appropriated each month in accordance with the "Regulations for the Allocation and Management of the Workers' Retirement Reserve Funds" to the Committee's dedicated account in the Central Trust of China and managed by the Committee.

Since July 1, 2005, in conjunction with the implementation of the "new system" stipulated in the Labor Pension Act, for employees who were covered by the Labor Standards Act and opt for the new system or employees who commence their job after the new system is implemented, their seniority shall be calculated by the defined contribution plan. The Company shall pay pension by allocating 6% of the employee's monthly salary to the personal labor pension account established for each employee. Employees may also choose to allocate 0–6% of their monthly salary to their person pension account; once employees meet the legal retirement age prescribed by the government, they may apply for monthly pension payments or a lump-sum pension payment from the government.

Employees in China are provided with social insurance (endowment/healthcare/occupational injury/child birth/unemployment insurance) and housing provident fund appropriations. In addition, the Company provides regular job promotion and salary adjustment opportunities each year to reward well-performing employees. We also distribute year-end bonuses based on the Company's business performance. Other benefits include the establishment of social clubs for employees such as basketball, volleyball, dance, and chess clubs. We hold dinner parties on important holidays and organize outdoor hiking and other large-scale activities. We provide production incentive bonuses and funding for employee care activities.

The Company's subsidiaries in China set aside pension insurance based on the mandatory ratio in accordance with the retirement and pension system required by the government of the People's Republic of China. All pension funds of current and retired employees are organized and managed by local governments.

Category	Company's Contribution	As a Percentage of Employees Covered by Pension Benefits
Shenzhen	Shenzhen residents:14% Non-Shenzhen residents: 13%	100%
Qinhuangdao	16%	100%
Huai'an	16%	100%
Yingkou	16%	100%
Taoyuan	New system:6% Old system: 2%	100%

To protect the interests and rights of employees, we specify in the Employee Handbook the provisions regarding the minimum period of advance notice, in the event of the following changes:

1. Where the company's businesses is suspended, or has been transferred.
2. Where the company's businesses suffer operating losses, or business contractions.
3. Where the change of the nature of business necessitates the reduction of workforce and the terminated employees cannot be reassigned to other suitable positions.
4. Where force majeure necessitates the suspension of business for more than one month.
5. A particular employee is clearly not able to perform satisfactorily the duties required of the position held.

The period of advance notice shall be as follows:

1. Where an employee has worked continuously for more than three months but less than one year, the notice shall be given ten days in advance.
2. Where an employee has worked continuously for more than one year but less than three years, the notice shall be given twenty days in advance.
3. Where an employee has worked continuously for more than three years, the notice shall be given thirty days in advance.

After receiving the advance notice referred to in the preceding paragraph, an employee may, during hours of work, ask for leave of absence for the purpose of finding a new job. Such leave of absence may not exceed two work days per week. Wages shall be paid during such leave of absence. Where an employer terminates the contract without serving an advance notice within the time limit prescribed in the preceding paragraph, the employer shall pay the worker wages for the advance notice period.

No major sanctions were imposed on ZDT in 2019 for violations of social regulations, including labor practice and human rights.

### Forced and coerced labor

The Company abides by the applicable labor requirements prescribed in the Responsible Business Alliance (RBA) Code of Conduct. We provide a workplace environment characterized by freely chosen employment, no forced and compulsory labor, non-discrimination, and freedom of association, as our internal management goals. To fulfill managerial requirements relevant to the RBA, the Company sets up a Social and Environmental Responsibility (SER) Committee. The head of the Office of Human Resources oversees departments involved in quality assurance systems, human resources, environmental engineering, general affairs, and occupational safety to collectively promote RBA-related requirements. When new employees report for duty at manufacturing sites, the human resource department provides SER policy training, which covers the following topics: Non-discrimination, prohibition of use of child labor and forced labor, working hours, voluntary overtime, salaries and benefits, freedom of association, and industrial health, among others. These training courses are aimed at creating harmony within employer-employee relations.

ZDT respects the freedom to choose employment. The Company signs labor contracts with employees in accordance with laws and the principles of equality and voluntary action. We prohibit the use of prison labor, bonded or indentured labor, slavery, and any other coerced involuntary labor, including illicit restrictions on workers' freedom of movement by means of punishments, physical threat, and corporal punishment. ZDT specifically establishes the Prohibition of Prison and Forced Labor Management Rules and Work Hours and Overtime Rules to strengthen our advocacy for a workplace where employees can work freely and independently. Human resource units send weekly reports of overtime situations to keep line managers abreast of work hour conditions and decide whether employees should take leave.

In 2019, the auditing of manufacturing sites involved a series of interviews and investigations on the reasonableness of employees' workload. Entry-level employees were interviewed to ensure that employees are not improperly treated at work and are not required to work overtime. The investigation results revealed no irregularities. All interviewed employees indicated that their job conditions are as needed for their position.

### Occupational Health and Safety

Safety is the basis and prerequisite for all activities. In a constantly developing society wherein economic globalization intensifies and technological advancement continues, safe production has become a blatant problem in Taiwan's socioeconomic development. ZDT establishes environmental protection and safety as the foundation for the company's development. The first and foremost core competitiveness of the Company is environmental protection and safety, an aspect also deemed as of utmost importance by Charles, the Chairman of the Company. Charles have stressed the importance of safety in multiple meetings, saying that he would rather not run this business if he cannot safeguard the safety of workplace and provide an Eco-friendly environment. As employees are most valuable asset, the health and safety of employees are the company's first priority.

Safe production is the fundamental requirement for the vigorous development of a company. Since the construction of its manufacturing sites, the Company has established an occupational safety organization in accordance with laws and the company's Business Rules. The organization is in charge of industrial safety and production tasks, including production safety, occupational health, and fire safety management. The Company adheres to applicable safety laws and regulations, adopts the "Three Simultaneous" system, perfects its safety management systems, provides employee safety training, implements risk identification and control, actively carry out self-examination and elimination of hidden dangers, inspects and improves the work environment, provides labor protection to employees, builds emergency response systems, and maintains its fire prevention system. These actions are aimed at building a safe and healthy work environment and safeguarding the safety and health of the company.

#### The Development Process of the Safety Organization



### Occupational Safety and Health Management Policies

ZDT formulates environmental safety and health policies in compliance with regulatory requirements, customer guidelines, and the principles of corporate sustainable operation. These policies are aligned with the company's Business Rules and include environmental policies (environmental management and environmental management substance process management policies) and occupational safety and health policies. Specifically, the occupational safety and health policies are as follows:



The Company's occupational safety and health policies primarily involve integrating the concept of "prevention" in planning the Company's occupational safety and health management tasks. As employees are most valuable asset, we insist on a business philosophy that embraces responsible care for people to create a safe, comfortable, and healthy work environment. ZDT strictly adheres to applicable laws and regulations of occupational safety and health and to the requirements of stakeholders. We continue to improve our occupational safety and health performance and ensure that the company grows steadily to achieve the ultimate goal: Becoming a zero-incident company (zero incidents: no major disasters).

By putting up posters, making announcements, and producing cards, we keep our employees informed of the company's occupational safety and health policies and make sure they implement it accordingly. Other staff members of the company (e.g., janitors, gardeners, construction workers, canteen employees, store attendants, laundry service providers, and truck drivers of logistic companies) are educated on the company's occupational safety and health policies through training, meetings, and posters to encourage them to work together with the company in keeping the work environment safe.

### Occupational Safety and Health Management

#### 1. Mid-term/ Long-term Goals



Short-term goal

Autonomous safety management

Medium to long-term goals Become a zero-incident company (zero incidents: no major disasters)

#### 2. Standards for Assessing Management Direction and Performance

Occupational safety and health issues	Goal	2019 Actual	2019 Target Achieved	2020 Goal
KPI 1: Prevention of industrial safety incidents	Number of major injuries: 0 Incident [Disability level of 7 or above, except for traffic accidents/sudden illnesses]	0	✓	0
	Number of fire disasters: 0 Incident [Fire disasters requiring external intervention (firefighters)]	0	✓	0
KPI 2: Occupational health management	Number of occupational diseases: 0 Incident	0	✓	0
KPI 3: Fire prevention system maintenance	Rate of properly maintaining fire prevention system: 100%	100%	✓	100%
KPI 4: Emergency response	Emergency response drills: 220 drills [Mainly refers to the workshop level (the periphery is the department level) emergency response]	245	✓	220

#### 3. Future Improvement Plans

- Provide guidance on operating processes: Initiate operational safety observations according to analysis results
- Test safety devices: Participate in design phase and test/inspect safety devices
- Build a safe culture: Promote safety rewards and impart knowledge on safety
- Improve fire prevention regulations: Perform paperless spot checks on fire safety equipment and improve fire prevention system regulations

## Occupational Safety and Health Management System

The Company adopts the OHSAS18001 Occupational Safety and Health Management System, which helps companies to commit to the continual improvement of occupational health and safety performance for the purpose of providing a safe and healthy work environment for employees and other staff members. Since its inception, the Company has actively implemented the OHSAS18001:2007 system. In 2008, the Shenzhen site and Huai'an Comprehensive Bonded Zone received their first SGS and BV certifications in 2008, respectively. Qinhuangdao and Huai'an sites received their first BV certification in 2009 and 2017, respectively. Since then, each manufacturing site has conducted system maintenance, supervision, and review by following the OHSAS18001:2007 requirements. Currently, each of our site has passed the 2019 review and they plan to apply for the ISO45001 certification review in 2020 to further enhance the company's safety and management and comprehensive management level and promote the regulation, standardization, and modernization of corporate management.



● Shenzhen site's OHSAS18001 certificate



● Qinhuangdao site's OHSAS18001 certificate



● Huai'an site's OHSAS18001 certificate



● Huai'an Comprehensive Bonded Zone's OHSAS18001 certificate

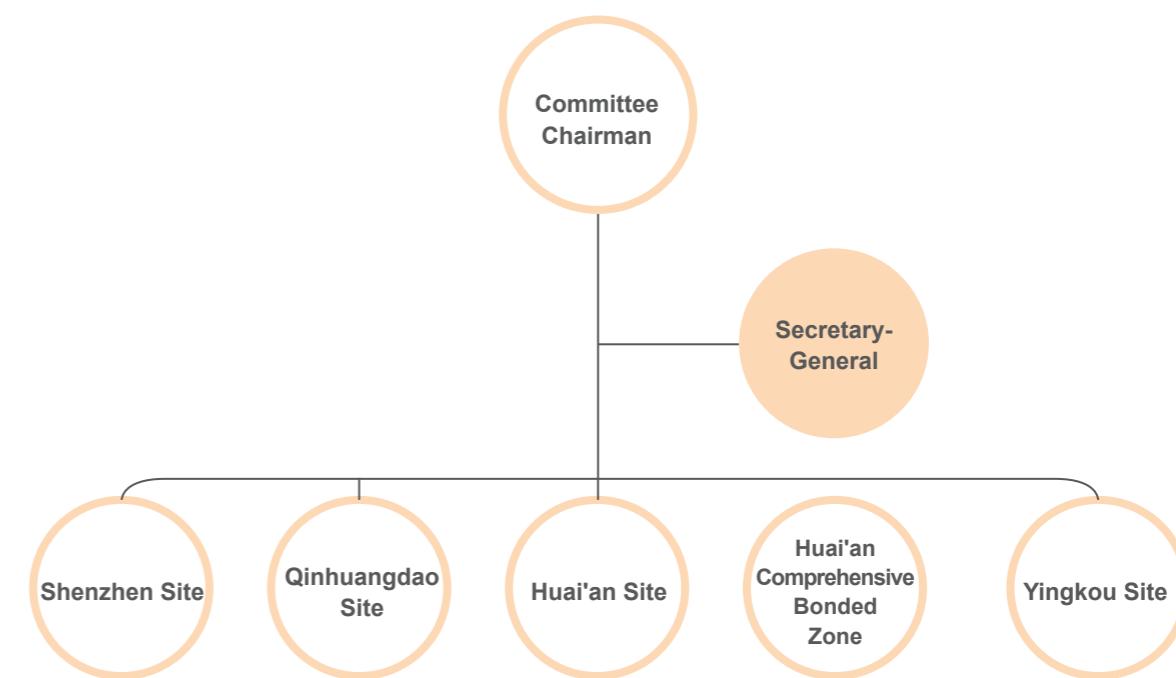


● Yingkou site's OHSAS18001 certificate

## Safety Production Committee

The Company has established the Safety Production Committee, which is composed of members from production, manufacturing, and peripheral departments. The Committee performs periodic review of the company's safety, occupational health, fire management system, and implementation statuses to continuously improve the company's safety management. The Committee convenes a meeting once a month.

### Safety Production Committee Organizational Chart



Manufacturing Sites	Shenzhen	Qinhuangdao	Huai'an & Huai'an Comprehensive Bonded Zone	Yingkou
Ratio of labor representatives	50%	53%	50%	33%

## Occupational Health and Safety Training

The objective of a company's production management is to maximize the general benefits. Achieving this objective inevitably requires safety training to secure the safety and stability of production operations. The ultimate goal of providing safety training is to prevent safety incidents from occurring, which can be achieved if only comprehensive safe production plans are actively implemented during the actual production process, and the skills, sense of responsibility, and safety awareness of employees are strengthened to a maximum degree. To enhance employees' safety awareness and skills, the Company offers multiple types of safety training that enables employees to know their work environment, identify the sources of occupational health risks associated with their work station, and understand the causes of incidents and response measures, thereby forming a subjective safety awareness in employees.

### 1. Employee safety training requirements

Employee safety training requirements primarily include: training for new employees, training for existing employees, training for special operations, A-level safety officer (who assist with factory safety in promoting local management), and safety reading.

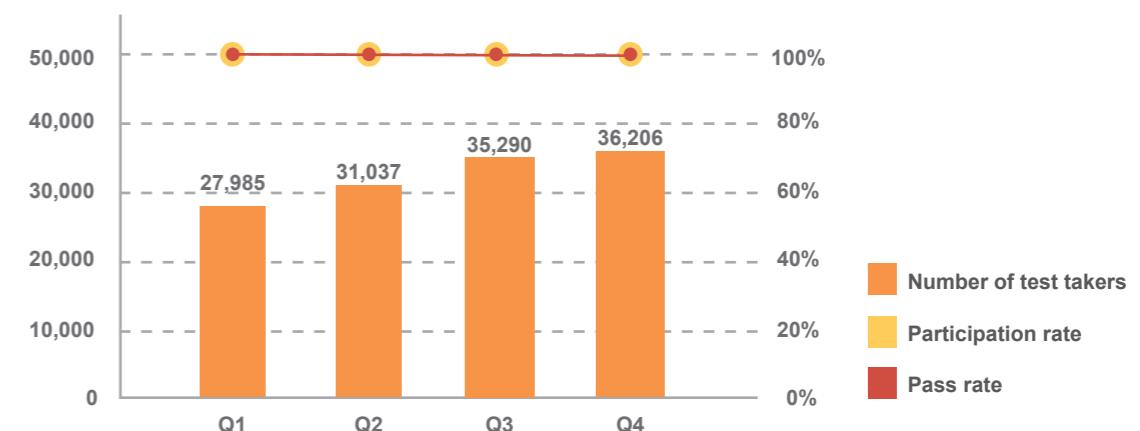


### 2. Safety Awareness Tests

In order to improve the safety qualities of all ZDT's employees and to enable them to master the ability of emergency response and self-rescue of danger, the Company plans a series of safety awareness tests on the basis of its safety training. In April 2017, an online safety awareness test was integrated into the company's "Tongbao" app. The safety awareness test can extend employees' safety knowledge and check the effectiveness of safety trainings. Results are stored in data systems to facilitate test result analysis for improving training contents. In 2019, some departments have conducted the test on specific topics, including the following:

Test Items	Q1	Q2	Q3	Q4
General Knowledge	Fire Safety Chemical Safety Electrical Safety Lightning/ rainstorm Protection	Fire Safety Chemical Safety Electrical Safety Safety of Manufacturing Sites in Summer	Fire Safety Chemical Safety Electrical Safety Safety Management during Chinese New Year	Fire Safety Chemical Safety Electrical Safety Safety Management during Chinese New Year
Manufacturing Department	Cease/commence production line operations Reinstatement training	Workplace protection	Safety protection devices	Occupational health check
Equipment/electricity Department	Oven Ventilation tube cleaning	Hot work protection	Sign posts and lock	Hoisting safety

The Company holds safety awareness test once every quarter. In total, 130,554 employees took the test in 2019, for a participation and pass rate of 100%. Quarterly statistics on the implementation status is as follows:



### 3. Industrial Safety Column and Multimedia Safety Video Playback

The Company adopts various means to impart safety knowledge to employees. For example, there is an "Industrial Safety Column" in the company's Ding Shen Monthly publication; safety videos are played on TVs/digital billboards in manufacturing sites. Safety hot spot problems or important safety knowledge is printed in the monthly publications, and short safety videos are played periodically to provide employees learning opportunities and raise their awareness on all aspects of safety.



## Occupational Health Checks and Occupational Health Environmental Inspection

The Company attaches importance to the occupational health of its employees. Our production techniques determine the occupational risk factors in production activities. The Company defines job positions associated with occupational hazards. To protect the physical health of employees and eliminate occupational risks, we implement the management of occupational hazards in accordance with safety and occupational health laws and regulations. We conduct tests on occupational risk factors associated with noisy lamination and forming processes and surface processing using sulfuric acid, among other occupational hazards. We also provide occupational health checks to employees.

<b>Physical Property</b>		Risk factors: Noise, high temperature, X-ray, etc. Jobs: Drilling holes, trimming, lamination machine, X-ray drilling target, etc.
<b>Chemical Substance</b>		Risk factors: Acid fog, ammonia water, methanol, nitrogen oxide, dust, etc. Jobs: Etching, plating, trimming, and dust-collector room, etc.

In addition to providing health checks as required by law, the Company initiated a “pure tone audiometry project” in 2017 to determine employees’ hearing status in advance. The project involved building our own audiometry examination room, purchasing pure tone audiometry instruments, and learning audiometry testing methods. In 2019, a total of 2,210 employees were self-assessed for hearing and tracked and improved 558 abnormal employees to achieve early prevention.

### 1. Occupational Health Check

First, health checks are provided to employees who work at occupational hazards jobs. Our manufacturing sites have employed local medical institutions to check the health of employees before they start/during their time/after they resign from working occupational hazards jobs. Subsequently, physical examination items are determined according to the various risk factors associated with these jobs. To ensure that all employees receive a physical examination before they resign, the Company has introduced a digital system that employees use to register and receive approval for resignation. When an employee resigns and registers it on the system, the system automatically shows whether the employee engages in occupational hazards works; if yes, the system then sends information to the contact window for industrial safety and occupational health management, which then signs off that the employee is safe to leave the position. This process ensures that employees who work occupational hazards jobs receive physical examination after they resign.

In 2019, a total of 14,466 employees received physical examinations before they start/during their time/after they resign from working dangerous jobs. Employees who returned abnormal results will be tracked to verify their status and improvement progress. The Company reported 0 cases of occupational diseases in 2019.

Manufacturing Sites	Shenzhen	Qinhuangdao	Huai'an Manufacturing Sites	Huai'an Comprehensive Bonded Zone	Yingkou	Total
Physical examinations before job	2,227	2,966	1,267	1,313	223	7,996
Physical examinations during job	1,148	1,860	613	596	451	4,668
Physical examinations after resignation	312	340	356	165	629	1,802

## 2. Occupational Health Environmental Inspection

Periodic occupational risk factor testing can help the company to keep abreast of the types of severity of occupational risk factors in the workplace and to adopt targeted preventive control measures to protect the occupational health of employees. ZDT hires certified occupational health technical service providers in accordance with laws and regulations relevant to occupational health protection, to test (once a year) occupational risk factors in dangerous workplaces. Test items include physical and chemical factors. The Company's five manufacturing sites have completed the annual inspection and improvements in 2019.

These manufacturing sites have also actively analyzed the source of occupational risks and adopted technical solutions to eliminate risks at the source. In 2019, all five manufacturing sites have completed a total of 124 improvements, including installing sound enclosures to reduce noise, blocking path of transmission, and replacing equipment or auxiliary equipment. In the 124 improvements, 113 achieved the expected outcome of providing a health and safe work environment for employees.

The Industrial Safety Department of each manufacturing site will report the annual environmental risk factor inspection results to the management department and post the results on the occupational health announcement board to provide employees with real-time information on the status of the work environment.

## Safety Production Preventive Management

### 1. Safety Problem Inspection and Correction

ZDT's occupational safety and health policies provide directions for preventive management. By using different methods such as safety risk identification, safety training, safety problem inspection and elimination, and risky equipment control, the manufacturing sites implement safety prevention management to eliminate safety problems and prevent risks. Major safety prevention management projects implemented in 2019:

Project Name	Implementation Focus	Description of Effectiveness
Project for promoting effective facility management and maintenance	Adopt QA01 plating management standards to conduct point-area inspection and improvement	Organized the 5S environment of production facilities and made them safer
Project for improving wet process heater	Replace non-anti-dry-heating heater with PTC heater	Improved the protective performance of heaters and reduced the probability of risky incidents
Equipment purchasing/acceptance safety assessment	Purchase new industry-safe equipment/Start participating in source verification and control	Improved equipment safety and prevented industrial safety incidents
Construction management improvement	1. Check high-risk areas before performing hot works; 2. Set up construction personnel insurance and validity period management and error prevention functions on the system	Improve and eliminate process risks in construction works
Fire prevention improvement	Continue to improve and refine repair and maintenance systems to meet the engineering standards of the Company	Improved 38 items in 2019, eliminated problems at the source, and improved system functionality

## 2. Contractor Construction Safety Management

Managing the construction safety of our contractors is an integral part of the Company's safety management. The Company has therefore established a management system for contractors: The Construction Safety Management Rules, which stipulate clear requirements and safety protective measures for managing the safety of three construction stages (before, during, and after construction). We require contractors to provide safety training for their own employees. Employees who engage in special operations must be certified. In addition, the Company provides safety training to any persons with access to construction sites, including supervisors of construction works, construction workers, responsible persons, and service providers. We also organize examinations, and those who pass the examination are given a certificate. Any construction workers working in the Company's five manufacturing sites are required to obtain a safety training certificate (valid for one year; they must undergo training and examination again next year). In 2019, the Company provided safety training to 5,667 construction workers and 798 supervisors, and all of them (n=6,564) participated in training and received a certificate at the end of training.

The following aspects were managed in 2019 for improvement: 1. Specify hot work protection requirements and check high-risk areas before performing hot works; 2. Hold morning/night safety meetings every day, ask contractors questions at random to make sure they are concentrating in training, and verify how well contractors mastered safety requirements; 3. Set up construction personnel insurance and validity period management and error prevention functions on the system. Attributed to the above management practices, we reduced the occurrence of industrial safety incidents and protected the safety of construction workers and service providers at the construction site. A total of 1,095 morning meetings was held in 2019 to remind contractors about safety. The Company has convened 221 weekly meetings with contractors in 2019; 8 to 10 contractors had sent representatives to attend each meeting, during which information on workplace safety was fully exchanged and communicated.

## Emergency Response

According to our development needs and the characteristics of our production activities, we formulate reporting and handling procedures for all types of emergency situations, so that we could address abnormalities in a timely and effective manner to reduce any disaster-related injuries and losses. To ensure swift, ordered, and effective initiation of emergency rescue operations, the Company's five manufacturing sites have developed solutions to emergency production safety incidents as required by law, and provided these solutions to the government's safety management department to put on record. Meanwhile, we inform nearby companies of the company's nature of accidental risks, range of impact, and emergency prevention measures, and work with these nearby companies to implement joint rescue operations and reduce the impact of incidents.

ZDT regularly organizes employees to carry out various emergency response drills to enhance employees' emergency response awareness and handling capabilities. Fire drills are held once every six months. In 2019, the Company continued to improve its fire prevention training (raise fire alarm, extinguish fire, switch off power supply, switch off ventilator, evacuate) and training on emergency responses in facilities. The Company's five manufacturing sites have held 245 facility safety drills and 85 fire drills.

## Employees evacuate to designated refuge area in the event of emergency



## Employee equipment practice and commander announcement

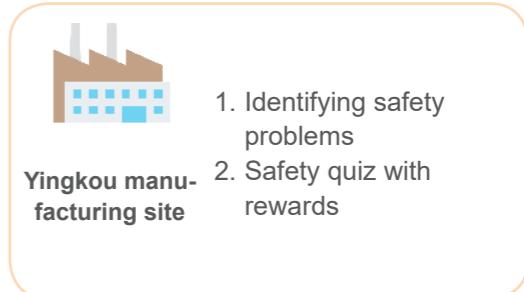
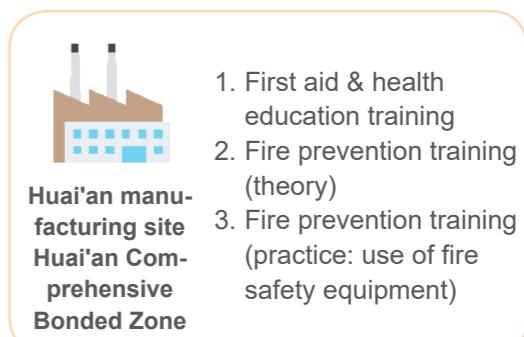
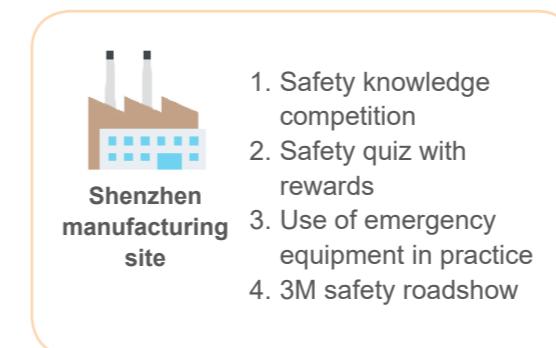


A competition on use of emergency equipment is organized and held in Shenzhen, Qinhuangdao, Huai'an, and Huai'an Comprehensive Bonded Zone at the same time. In the competition, units form a team or join with other teams and simulate emergency rescue operations when a fire occurs. The competition aims to hone employees' ability to respond to unexpected events, examine how well employees can use emergency equipment, and simultaneously foster teamwork in the event of emergency.

## Safety Activities

### 1. Internal Safety Activities

The Company designates June and November as Safety Month and Fire Prevention Month, respectively, during which a wide range of emergency response activities is held, including: Safety quiz, safety knowledge competition, safety drill competition, identifying safety problems, 3M safety roadshow, and use of fire safety equipment. These activities provide a vivid and lively approach to improving employees' understanding of safety practices. In 2019, the Company's five manufacturing sites have held 24 safety activities, which were participated by 6,163 employees.





## 2. External Safety Activities

The Company values its ties with governmental and community safety management units and actively arranges employees to participate in safety activities organized by the government and community. In April 2019, the Company's five manufacturing sites have participated in six safety activities that were organized by the government.

- (1) Shenzhen site organized three employees in the 2019 Shenzhen Bao'an Occupational Health Knowledge Competition, and they won first place in the competition.
- (2) Qinhuangdao site organized three employees to participate in the National Fire Fighting Skills Competition "2019 Qinhuangdao City, Hebei Province, I am a Fire Fighter", and won the first place through the battle clothes of "three people and two feet" walking, saving a single frame, etc. The team therefore entered the provincial National Fire Fighting Skill Competition "2nd Hebei Province, I am a firefighter" and won the third place.
- (3) Yingkou site organized six employees in the Second Yingkou Coastal Industry Micro Fire-fighting Skills Competition, which included giving practical demonstrations of using an 8-kg fire extinguisher and connecting firefighting hose. They won first place in the Group Award. Subsequently, these employees participated in the firefighting skills examination, which was held by the Binhai firefighting team in September and November 2019.

## Grievance System for Safety Problems

A company's safe development relies on the support and participation of its employees. ZDT encourages employees to identify safety problems and propose solutions. The Company's five manufacturing sites have established a central control center as well as a 24-hour hotline for reporting emergency situations. Employees are informed of the emergency telephone number through announcements, awareness meetings, and signs office phone. After receiving reports of safety problem, the person on duty will immediately confirm the problem at the scene, handle it accordingly, and document it for follow-up purpose.

## 4/ Diverse Social Activities

ZDT organizes and funds different employee clubs and cultural and health-promoting activities. We renovate, optimize, and upgrade activity areas for employees. We also have a movie theater, gym facility, and yoga class to create a happy work and living environment for employees.

**The objective of a social club for employees:** To foster employees' interests and hobbies, create a talent cultivation space, and build a pool of talented artists and athletes.

**The purpose of social activities:** To create a harmonious atmosphere, diversify the culture and lifestyles of employees, and construct a performance stage for artists and all types of talents.

Social clubs and participation in each manufacturing site in 2019

### Shenzhen manufacturing site

Name of Social Club	Social activities held in 2019	No. of participants
Giant Basketball Club	Cup of Excellence (five-on-five basketball game)	813
Badminton Club	Badminton Cup, the 2nd Bao'an Union Cup Badminton Tournament, and Bao'an Five-Category Top 100 Badminton Group Tournament	1,318
Youth Dance Club	2019 Chinese New Year Banquet, Youth dance classes	2,676
Spinning Club	Spinning classes	1,755
Youth Music Club	2019 Rock and Roll Music Festival	3,000



## Qinhuangdao manufacturing site

Name of Social Club	Social activities held in 2019	No. of participants
Giant Basketball Club	Cup of Hope (three-on-three) and Cup of Excellence (five-on-five basketball game), ABA League, Friendly Match between Basketball Club and Elite Club, Friendly Match between Basketball Club and Development Zone National Taxation Bureau	8,037
Badminton Club	Badminton Cup tournament	1,032
Table Tennis Club	Cup of Ping Pong tournament	560
Plaza Performers Youth Music Club Radio Host Club	Performances by Plaza Performers	20,657
Youth Music Club Spinning Club	Dance, yoga, and spinning classes	7,147



## Huai'an manufacturing site

Name of Social Club	Social activities held in 2019	No. of participants
Giant Basketball Club	Cup of Excellence (five-on-five basketball game)	1,505
Badminton Club	Badminton Cup tournament, the 2nd National Fitness Badminton Tournament of the Huai'an Economic and Technological Development Zone	419
Youth Dance Club	Youth Dance dancing classes	489



## Yingkou manufacturing site

Name of Social Club	Social activities held in 2019	No. of participants
Giant Basketball Club	Cup of Hope (three-on-three basketball game)	275
ZDT Lifestyle Club	DIY lamps and flower arrangement classes	76



## 5/ Transparent and Uninterrupted Grievance Channel

ZDT believes that the successful fulfillment of the Company's operation targets relies on employees' dedication and contributions. A harmonious relationship between labor and management is therefore necessary to achieve solidarity among employees. We uphold the ideals of caring for employees and creating mutual prosperity. From salaries, benefits, to training policies, we strive for designs that benefit employees and simultaneously create a positive work environment, so that both employers and employees can advance toward the common goal of pursuing growth for the Company.

For this reason, the Company's internal control system and management regulations specify the duties and interest of all employees from all departments. To protect the rights and interests of our employees, we also specify Work Rules in the Employee Handbook, which is made known to new employees and also available to employees at all times on the human resource digital platform.

ZDT has established an Employee Welfare Committee to implement various welfare activities. Manufacturing sites in Taiwan have also established labor meeting systems as required by law, and convene labor-management meetings each quarter to facilitate bidirectional communication and coordination on the Company's recent and future policies to reach a consensus. In addition, the Company has Management Rules for Employees to File a Complaint and Provide Suggestions. Our employees can also use the Company's employee opinion box, digital platform, and other grievance channels to provide suggestions and feedback to the Human Resources Department or senior managers in order to maintain positive relations and protect employees' legal rights.

Manufacturing sites in mainland China have established trade unions to protect the rights of employees and offer different benefits for employees. Chinese union law states that membership of trade unions is available to all laborers and knowledge workers, irrespective of their ethnicity, race, gender, occupation, religious belief, and education level. They shall submit application voluntarily, which will be approved by grassroots trade union committee following discussions among trade union groups. Union members are entitled to the following rights:

1. To elect, be elected, and vote.
2. To supervise trade union work, put forward opinions and suggestions, and demand the removal or replacement of incompetent union worker.
3. To make criticisms and suggestions concerning problems in the state, social life, and their own work units, and demand that trade union organizations accurately convey them to the departments concerned.
4. To demand that trade unions provide protection when their legal rights and interests are infringed upon.
5. To enjoy the preferential treatments provided by trade unions in the areas of culture, education, sports, tourism, travel, livelihood relief, legal assistance, and employment services; To enjoy various rewards given by trade unions.
6. To participate in discussions on trade union work and issues of concern to workers and staff members at union meetings and through trade union-run publications.

Trade union framework of each manufacturing site is as follows:



In 2019, the Company reported two litigations with its employees, which primarily involved labor relations, compensation, and claims; both cases are closed.

The Company's manufacturing sites contribute to social welfare funds that correspond to the social security and welfare system required by law to protect employees' rights and interests at work. The Company did not sustain significant loss due to labor disputes in 2019.

Although we have not yet established a trade union in Taiwan, we provide various channels to maintain uninterrupted communication with our employees. Currently, our sites in China have established trade unions, and all of our employees (100%) are protected by the collective bargaining agreement, shown as follows:

Manufacturing Sites	Shenzhen	Qinhuangdao	Huai'an	Yingkou
Employees Protected by Collective Bargaining	13,259	13,328	8,825	86
Employees in China Protected by Collective Bargaining	100%	100%	100%	100%

## A Summary of Trade Union-Provided Services and Employee Benefits

Category	Content	Descriptions
Labor relation coordination	Employee relief	Provide a specific amount of subsidy according to actual situation to help employees who are struggling financially.
	Psychological counseling	Care for the mental health of employees by providing psychological counseling and appeals services to them.
Moral support	Consolation by trade union	Include consolations to employees who are hospitalized, who suffered injuries from work, and their family members.
	Health-promoting facilities	Our employee activity center is equipped with facilities for badminton, table tennis, basketball, movie theater, yoga, dancing, spinning, and gym.
Entertainment Activities for workers and staff members	Cultural and entertainment activities	Carnivals, themed dinners, cultural and arts festivals, group birthday celebrations, etc.
	Dragon Boat Festival/Moon Festival/Chinese New Year celebrations	Gifts and blessings are provided to employees on special occasions, including Dragon Boat Festival/Moon Festival/Chinese New Year.
A learning life	Gatherings for union work groups	Social gatherings are organized for employees on a regular basis every year, where each person is gifted RMB60.
	Chinese New Year raffle	Chinese New Year banquets are held every year to thank employees for their hard work.
Employee benefits	Employee education/free training classes	General knowledge training: Sports, culture and arts, emotions, internal development training, education, etc.
	Evaluation and ratings	Internal and external award ceremonies, such as ceremonies for awarding employee commitment, innovation, and excellence.
Employee benefits	Merchants contracted by the Company	The Company's employees enjoy discounts when purchasing with contract merchants (e.g., bakery shop)
	Entrance tickets to tourist destinations at discounted price	Special rates for entrance ticket to tourist destinations and iPass card services are provided.
	Free health screening	Free health screening is provided to employees every year
	Free laundry service	Free laundry service is provided to employees who live in dormitories

## 4-2 Talent Development

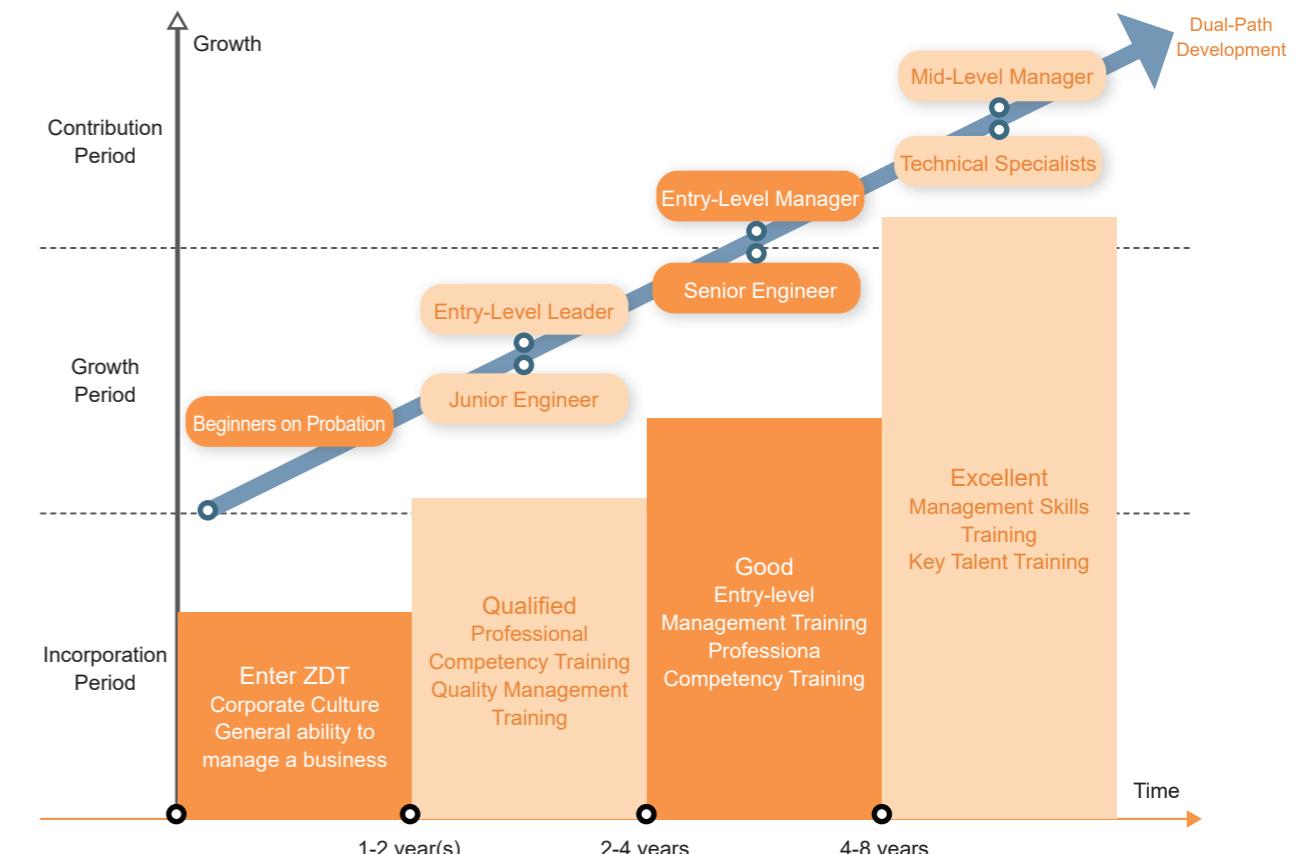
ZDT believes that only with skills and personality fit for their job can employees create greater corporate value and feel a greater sense of achievement at work, thereby achieving self-development and self-actualization. With this belief in mind, we are heavily committed to fostering professional talents, from talent recruitment, education and training, annual performance evaluations, personalized career planning, to farewell blessings when employees leave the company; every nitty gritty bits of this process show traces of our careful consideration for our employees.

The Company adopts a merit-based and open attitude when recruiting talented employees. To avoid subjective judgments, we use scientific evaluation tools comprehensively to confirm the suitability of new employees. Apart from a staff member from the human resource department who interviews the candidates to get an understanding of their basic information and personal traits, immediate supervisors also take part in in-depth interviews to talk about skills and experiences. All new employees are selected through a consistent and impartial process. When recruiting, the human resource department looks for three qualities in new hires: sense of responsibility, the determination to be better, and ambition. In addition to objective indicators such as work experience, educational background, and professional skills, employee commitment to work is also valued. We hope that through this process, we can recruit talents who are an effective and agreeable team player. Because integrity is one of our core values, we pay special attention to employees' moral character, hoping that employees could understand and embrace the company's corporate culture, embody the spirit of mutual assistance, and feel happy and fulfilled every day at work.

At ZDT, we offer a wide array of training. Each employee can choose different ways of development according to their personal competency, interests, and expertise, to achieve the dual objectives of career advancement and professional development. At different stages of development, employees can find corresponding training courses to fulfill their development needs. Internal training courses proceed as follows:



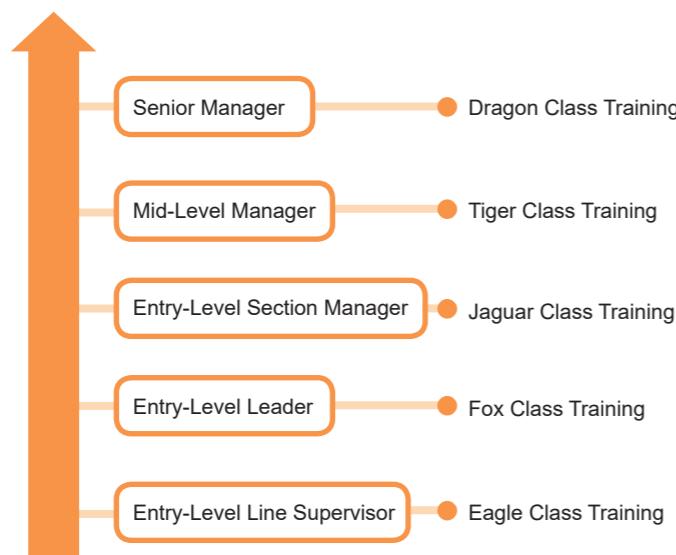
We separate employees' growth into three periods and customize training programs appropriate to them:



Employees can spontaneously choose their own courses fit for their stage of development. In addition, the Company also designs education and training for different job levels and departments to effectively integrate internal resources while systematically fostering all types of professionals required for organizational operations and development. Currently, we offer the following types of training: orientation training, management competency, professional competency, core competency, lectures, and inspirational courses.

1. Orientation training: The Company arranges training courses on the Company's history, corporate culture, human resources policies, and work safety, to prepare new employees before they start working for the Company.
2. Management competency: The Company establishes career advancement plans for various managers and key talents and accordingly arranges management skills training to assist managers at work and in management.
3. Professional competency: The Company provides all employees with professional skills training courses (e.g., professional certification training, total quality management, IE methods, four major systems, etc.) and appoints senior managers, technical experts, and professional companies to share their experience and improve the Company's competitive advantages.
4. Core competency: Given the Company's people-oriented corporate philosophy and core values of integrity, responsibility, and excellence, we require new employees to receive core value training. A total of 741 training classes was held in 2019. At the same time, core competency courses such as time management, communication skills, management by objectives, and presentation skills are also organized as needed to help employees to master workplace skills.
5. Internal lecturers: We proactively hire in-house lecturers to share their knowledge and experiences, thereby turning the Company into a learning organization. We arrange training courses for lecturers to improve their teaching ability. We also host appreciation dinners for lecturers to encourage continuous improvement.
6. Self-inspirational training: The Company offers a wide variety of learning channels, including the "Master of ZDT", language training, self-cultivation, education, reading club, overseas or job rotation training, to help employees maximize their potential and improve job performance.

In 2019, a total of 1,954,243 hours of training, including orientation training, management competency, professional competency, core competency, lectures, and inspirational courses, was provided to 658,158 participants. The Company organized 2,035 courses in 2019. On average, each employee received more than 58 hours of training and the total training expenditures amounted to NTD 25,217,773.



The Company conducts employee performance evaluation every year and also provides incentives in the form of rewards, salary adjustments, bonuses, and promotions based on performance evaluations. After the conclusion of the annual review and budget meeting, one-on-one meeting between managers from each level and department or functional heads is arranged to establish personal goals and main KPIs that are agreeable to both parties. Each department or functional head also interviews employees on a one-on-one basis to establish main KPIs that are agreeable to both parties.

At ZDT, one of the key topics of discussion between supervisors and subordinates for the year is performance planning. Supervisors must fulfill their duty to performance planning and discussion. We believe that bilateral communication and discussion is not only related to a person's annual performance but also influences the company's general performance. Therefore, interviews should involve detailed discussions and rules about matters related to performance, such as the priority order of duties, employee expectation, aspects to be improved, and goals, etc. The recruitment process is as follows:



Self-assessment by employees → preliminary assessment and interview by immediate supervisor or department head → meeting and evaluation by department manager → review by manager in charge according to delegated authority → comments from director of HR Office → approval by manager in charge according to delegated authority.

Category	Shenzhen		Qinhuangdao		Huai'an		Yingkou		Taoyuan		Subtotal
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Number of employees receiving regular performance and career development reviews	9,097	4,162	9,097	4,231	5,987	2,838	59	27	542	141	36,181
Total number of employees			13,259		13,328		8,825		86		683
Percentage (%)		100		100		100		100		100	100

4/Talent Retention

From our perspective, "talent" is fundamental to a company's competitiveness. Therefore, we provide good salaries and benefits, a harmonious work environment, and a comprehensive training system and value employees' health. In doing so, we aim to create a happy company that yields corporate value and inspires employees to grow together with ZDT.

To improve employee competency while fostering talents for society, we encourage employees to participate in continuing education and offer scholarships, as well as internship opportunities for new graduates to fulfill their job needs and future career development.

1. The Company has funded 180 university students in 2019.
2. Three students received scholarship to the value of NTD 720,000 in 2019.
3. In 2019, the Company offered summer internship to 40 Taiwanese students and 2 Chinese students, providing a total of NTD 1,000,000 in funding.

## 4-3 ZDT DNA

### 1/ZDT's Six Loves Culture and Annual Events

#### 4 Employee Care & Talent Development

We hope that employees could care for the people around them from the inside out and spread this sentiment of love to earth. Our events throughout the year revolved around the “Six Loves” theme so that employees could participate and demonstrate their commitment to the society. The Company has organized 3,331 “Six Loves” activities in 2019, and roughly 474,465 people participated.

“Six Loves” refer to the following:

1. Love Yourself: The Company encourages employees to learn to love themselves. We plan a series of professional, technical, and management courses to help employees to improve themselves. We organize various yoga, dance, handicraft, spiritual growth, and healthy lifestyle courses to help employees to take care of themselves, improve their tastes, increase their cultural appreciation, and build personal charm and style.
2. Love Your Family: The Company actively organizes social gatherings, family events, family development day, happy couple events in each manufacturing site to build a platform for emotional exchange. Through these events, employees could find happiness in the Company and interact more proactively with their family members to thank them for their hard work.
3. Love Your Colleagues: The Company provides employees with comprehensive care from visits to production lines, employee seminars, hotline assistance, and birthday celebrations for employees to strengthen positive relations among employees and create a friendly, happy, and harmonious environment that encourages interaction and communication and boosts team cohesion and solidarity.
4. Love the Company: The Company provides employees with a stage to fulfill their personal values in life. We encourage employees to integrate their own growth in the Company's development. The Company's listing on the stock exchange enables employees to reap the results of their labor and share the glory of the Company's success. We organize various reward and incentive activities to inspire employees' passion for their jobs and careers. We continue to encourage employees of ZDT and increase their sense of belonging and happiness.
5. Love Your Life: The Company has built and improved a movie theater, dance and yoga room, gym facility, and other integrated multi-functional cultural venues coupled with a wide range of activities (e.g., gym check-in, amateur club activities, sports competitions, themed parties, pottery, and floral design courses) to satisfy employees' different needs and help them to lead healthier and better lives.
6. Love the Earth: “Protecting the environment and making the earth a better place” is one of the Company's motto. The Company organizes events during the Environmental Protection Month, environmental protection education on campus and in local communities, resource recycling exhibitions, and green hikes to promote a green corporate culture, fulfill our environmental missions, and make the earth a more beautiful place through our actions.

Based on this idea of Six Loves, the Company builds a loving corporate culture and simultaneously establishes communication channels to promote this culture. For example, our Ding Shen Monthly publication and the daily broadcast “Joyful Sounds of ZDT” enable employees to look out for the people around them, lead a fulfilling life, and identify more with the values and beliefs of the Company.

#### Love Yourself

We organize relaxing and fun activities that enable employees to focus on their health and fitness, relax their body and mind, de-stress, and improve their spiritual wellness.

Manufacturing Sites	Functional Unit	Name of Activity	Participants	Start/End Time	No. of Sessions	No. of Participants
Shenzhen	Longteng & Trade Unions	Yoga	Company employees	2019/3-2019/12	47	688
Shenzhen	Longteng & Trade Unions	Lectures on Chinese Studies	Company employees	2019/3/18	1	74
Shenzhen	Longteng & Trade Unions	Fitness center check-in	Company employees	2019/3/18~2019/4/16	1	795
Shenzhen	Longteng & Trade Unions	Flower-pressing class for female staff members	Company employees	2019/6/12	1	35
Shenzhen	Longteng & Trade Unions	Stress management talks	Company employees	2019/6/25	1	68
Shenzhen	Longteng & Trade Unions	Free cancer screening for female staff members	Company employees	2019/8/31	1	429
Shenzhen	Longteng & Trade Unions	DIY course	Company employees	2019/12/23	1	55
Qinhuangdao	Longteng & Trade Unions	Love Yourself: Gym check-in	Company employees	2019/3/19~4/23	2	297
Qinhuangdao	Longteng & Trade Unions	DIY happiness course	Company employees	2019/3/19	1	85
Huai'an	Longteng & Trade Unions	Love Yourself: Flower arrangement DIY class for the Huai'an Comprehensive Bonded Zone	Company employees	2019/3/20	1	33
Huai'an	Longteng & Trade Unions	Love Yourself: Exercise check-in	Company employees	2019/3/18~3/28	9	589
Huai'an	Longteng & Trade Unions	DIY happiness course	Company employees	2019/11/14	1	55
Yingkou	Longteng & Trade Unions	Flower arrangement course	Company employees	2019/3/28	1	39
Total						3,242



## Love Family

To create a warm, happy family atmosphere, increase employees' wellbeing and sense of belonging, and provide altruistic care, the Company has held the following activities, as means of building a platform that surrounds employees with the love of their families, friends, and partners and caring for the health and development of employees' children:

Manufacturing Sites	Functional Unit	Name of Activity	Participants	Start/End Time	No. of Sessions	No. of Participants
Shenzhen	Longteng & Trade Unions	Family Day	Company employees and their family	2019/8/18	1	76
Shenzhen	Longteng & Trade Unions	Social gatherings	Company employees	2019/8/25	1	50
Qinhuangdao	Longteng & Trade Unions	Social gatherings	Company employees	2019/8/18	1	150
Qinhuangdao	Longteng & Trade Unions	Family Day	Company employees and their children	2019/8/17	1	180
Huai'an	Longteng & Trade Unions	Love Your Family: Family Development Day	Company employees	2019/8/18	1	62
Huai'an	Longteng & Trade Unions	Love Your Family: Family Development Day	Company employees	2019/8/25	1	40
Yingkou	Longteng & Trade Unions	Giving thanks and blessings to families	Company employees	2019/8/22~8/23	2	310
Yingkou	Longteng & Trade Unions	Youth social gatherings	Company employees and their children	2019/9/8	1	30
Total						898



## Love Your Colleagues

The Company organizes a series of Love Your Colleagues events to elevate employees' wellbeing and sense of belong, thank employees for their input, fortify a team's cultural foundation, boost team morale, and promote interactions between employees.

Manufacturing Sites	Functional Unit	Name of Activity	Participants	Start/End Time	No. of Sessions	No. of Participants
Shenzhen	Longteng & Trade Unions	Birthday celebration for senior employees	Company employees	2019/1~2019/12	12	1,713
Shenzhen	Longteng & Trade Unions	Birthday cards and gifts	Company employees	2019/1~2019/12	24	21,691
Shenzhen	Longteng & Trade Unions	Birthday cakes for managers	Company employees	2019/1~2019/12	12	436
Shenzhen	Longteng & Trade Unions	Love Your Colleagues: DIY lamps and collecting "likes"	Company employees	2019/2/18	1	1,436
Qinhuangdao	Longteng & Trade Unions	Birthday celebration for senior employees	Company employees	2019/1~2019/12	12	2,662
Qinhuangdao	Longteng & Trade Unions	Birthday cards and gifts	Company employees	2019/1~2019/12	36	23,154
Qinhuangdao	Longteng & Trade Unions	Pig year blessings	Company employees	2019/2/4~2/6	3	591
Huai'an	Longteng & Trade Unions	Quarterly birthday celebration for senior employees	Company employees	2019/1~2019/12	8	1,016
Huai'an	Longteng & Trade Unions	Birthday cards and gifts	Company employees	2019/1~2019/12	48	11,49
Huai'an	Longteng & Trade Unions	DIY lamps and collecting "likes"	Company employees	2019/2/18	1	121
Yingkou	Longteng & Trade Unions	Quarterly birthday celebration for senior employees	Company employees	2019/1~2019/12	3	235
Yingkou	Longteng & Trade Unions	Birthday cards and gifts	Company employees	2019/1~2019/12	30	1,494
Yingkou	Longteng & Trade Unions	Pig year blessings	Company employees	2019/2/4~2/6	3	75
Total						66,118



## Love the Company

By hosting various award ceremonies and exhibitions, we document the growth trajectories of our employees and the Company. We also erected a Lennon wall that is filled with words of blessings to encourage employees to love and commit to the Company with zealousness.

Manufacturing Sites	Functional Unit	Name of Activity	Participants	Start/End Time	No. of Sessions	No. of Participants
Shenzhen	Longteng & Trade Unions	Dress-up parties and raffle ticket draws	Company employees	2019/12/23~12/27	16	3,900
Shenzhen	Longteng & Trade Unions	Bao'an District international marathons	Company employees	2019/12/1	1	129
Shenzhen	Longteng & Trade Unions	Ding Sheng Monthly	Company employees	2019/1~2019/12	47	28,700
Qinhuangdao	Longteng & Trade Unions	Dress-up parties and raffle ticket draws	Company employees	2019/12/22~12/26	8	2,300
Qinhuangdao	Longteng & Trade Unions	Fire safety knowledge competition	Company employees	2019/12/11	1	360
Huai'an	Longteng & Trade Unions	Fire safety knowledge competition	Company employees	2019/12/17~12/19	2	288
Huai'an	Longteng & Trade Unions	Dress-up parties and raffle ticket draws	Company employees	2019/12/16~12/24	5	2,254
Total						37,931



## Love Living

To raise employees' crisis awareness while safeguarding their life, the Company also attempts to enrich the cultural lifestyle of employees, improve their quality of life, cultivate staff sentiment, and enhance employees' wellbeing and sense of belonging.

Manufacturing Sites	Functional Unit	Name of Activity	Participants	Start/End Time	No. of Sessions	No. of Participants
Shenzhen	Longteng & Trade Unions	Fire Prevention Month activities	Company employees	2019/11/11~2019/12/2	5	1,100
Shenzhen	Longteng & Trade Unions	Burn My Calorie: Exercise and gym check-in	Company employees	2019/11/13~12/4	2	623
Shenzhen	Longteng & Trade Unions	Coffee tasting	Company employees	2019/11/27	1	58
Qinhuangdao	Longteng & Trade Unions	2018 Year-End Banquet cultural services	Company employees	2019/1/5~2019/1/19	7	2,509
Qinhuangdao	Longteng & Trade Unions	Let's Chase Your Dreams Together: Corporate Cultural Exchange	Company employees	2019/1/28	1	200
Qinhuangdao	Longteng & Trade Unions	Sports Day & Sports Tournaments for Staff Members	Company employees	2019/7/6~2019/7/14	4	53
Qinhuangdao	Longteng & Trade Unions	Cultural and Arts Festival	Company employees	2019/9/20	1	2,800
Qinhuangdao	Longteng & Trade Unions	Burn My Calorie: Exercise and gym check-in	Company employees	2019/11/11~2019/12/3	2	1,630
Qinhuangdao	Longteng & Trade Unions	Coffee tasting	Company employees	2019/11/27	1	52
Huai'an	Longteng & Trade Unions	Coffee tasting	Company employees	2019/11/27	1	62
Huai'an	Longteng & Trade Unions	Burn My Calorie: Exercise and gym check-in	Company employees	2019/11/12~2019/11/13	2	310
Yingkou	Longteng & Trade Unions	Fairs and carnivals	Company employees	2019/3/28~2019/3/29	2	320
Total						9,717



## Love the Earth

In protecting the ecosystem and embracing a greener life, the Company fulfills its corporate social responsibilities, actualizes green environmental concepts, promotes green corporate image, spread green positive energy, and initiates a series of events to protect our beautiful homeland.

Manufacturing Sites	Functional Unit	Name of Activity	Participants	Start/End Time	No. of Sessions	No. of Participants
Shenzhen	Longteng & Trade Unions	Environmental poster exhibition	Company employees	2019/5/21~2019/6/4	2	660
Shenzhen	Longteng & Trade Unions	Recycling used batteries	Company employees	2019/5/27	1	39
Qinhuangdao	Longteng & Trade Unions	Recycling used batteries	Company employees	2019/5/24	7	320
Qinhuangdao	Longteng & Trade Unions	Environmental poster exhibition	Company employees	2019/5/20~2019/5/23	3	660
Qinhuangdao	Longteng & Trade Unions	International marathon courses & marathons	Company employees	2019/5/8-2019/5/12	2	179
Huai'an	Longteng & Trade Unions	Recycling used batteries	Company employees	2019/5/20~5/21	2	106
Huai'an	Longteng & Trade Unions	Environmental poster exhibition	Company employees	2019/5/28~2019/5/30	5	421
Yingkou	Longteng & Trade Unions	Environmental awareness exhibition + recycling used batteries	Company employees	2019/6/12~6/14	3	310
Total						2,695



## 2/Sincere Communication

Our Ding Sheng Monthly publication not only repeatedly advocates the company's corporate culture and core values of Integrity, Responsibility, Innovation, Excellence, and Altruism, but also provides brief reports of major activities held in each manufacturing site. In addition, there are columns dedicated to English teaching, experiences shared by managers, knowledge on laws, poems, articles written by employees, and photos of ZDT. Our newsletter allows employees to apply their creative writing skills, and it also communicates information about the Company's manufacturing sites.

We also actively participate in government-organized marathons and the Bao'an Development Exhibitions to interact with, learn from, and grow with external communities and showcase the corporate image of ZDT and the unique qualities of our employees.



# 5

## Love-Filled Family Love-Filled Society



5-1 A Love-Filled Family: Social Contribution  
5-2 A Love-Filled Society: Sharing Stories

### Key Achievements

No. of Master Graduates Funded  
in 2019

3

No. of Participants in 45 Sessions of the  
“Six Helps” Event in 2019

**Approximately  
7,727 people**

## 5-1 A Love-Filled Family: Social Contribution

### 1/A Loving and Helpful Corporate Culture



### The "Six Helps" include:

- (1) **"Help the Elderly"**: We regularly visit elderly people who live alone and we organize employees to provide volunteer services in retirement homes to improve employees' gratitude and awareness for respecting their elders. We promote respect, honor, and love for the elders and provide them with love and care to contribute to social welfare activities.
- (2) **"Help the Weak"**: The Company sponsors children's homes or environmental health workers among other disadvantaged groups, and lead employees to care for and spend time with disadvantaged groups in society. We organize volunteer service teams and use our actions to implement the volunteer's spirit of "sacrifice, love, helping others, and progress". We use our love as a force for building hope and the future.
- (3) **"Help the Disabled"**: The Company provides disabled people with jobs to help them self-reliant and fulfill their own goals. We visit rehabilitation centers and home of disabled people to accompany disabled people, bring love to disabled children, and give them sunshine and warmth.
- (4) **"Help Education"**: We visit students with financial difficulties and donate books and other materials for studies. We improve the education environment at schools and set up book corners. We use a variety of interactive activities to help children expand their horizons and gain knowledge for their growth and maturity.
- (5) **"Help Transportation"**: We promote transportation safety and increase pedestrians' awareness of traffic laws to construct a civilized and orderly transportation environment. We encourage compliance with traffic laws and civilized driving. We provide citizens and environment sanitation workers with drinking water and we distribute environmentally friendly bags to fulfill our low-carbon environmental protection ideals and show how much the Company cares.
- (6) **"Help Cleanliness"**: We promote the maintenance of a clean environment and we organize charity cleaning events on the beach and in parks to transform our care for the environment into actions in the daily lives of our employees. We fulfill goals for energy conservation and environmental protection development and lead the society in jointly implementing our ideals for loving the Earth.

We fulfilled our corporate social responsibility through a series of "Six Helps" events. The Company adopted its own song "Let the World See" to deliver our corporate culture and take on corporate social responsibilities to contribute to social advancement. The Company shall uphold the spirit for continuous innovation and we hope to make ourselves, the environment, society, and the Earth better each day.

### 2/Community Impact Assessment

The Company's manufacturing sites maintain a positive interaction and communication with local communities and governmental agencies. Various operating activities in these sites conform to requirements relevant to environmental impact assessment. The Company continues to assess nonsignificant negative impacts on local communities and environments. Apart from these efforts, we also strive to act as the model example for the industry. In addition to minimizing negative impacts and completely abiding by environmental and social laws, we take further step in contemplating ways to improve our community and local environment. For instance, we take the initiative to assist with road planning and traffic management with regards to traffic congestions around our manufacturing sites. In doing so, we hope to safeguard areas around us against traffic accidents and protect the safety of employees commuting to work and leaving work.



### My Piece of Land

To boost the rice industry in Taiwan and fulfill our corporate social responsibility, ZDT has launched a particularly meaningful activity, called My Piece of Land. Through this volunteering activity, we hope employees and their spouse can contribute to Taiwan with actual actions. Furthermore, the Company also donates a portion of the crops harvested to charity organizations to fulfill our social responsibilities.

### Statistics of Donations Made

We care for community elderly people in Taiwan. Specifically, the Company sponsors the year-end banquets of the Three Stone Community Development Association, and takes actions (such as donating goods in winter) to deliver our care and love for the community and neighborhoods.

To promote industry-academic cooperation and make use of schools' existing resources, the Company encourages young learners to focus on academic research and technological innovation. Furthermore, we cooperate with various universities in Taiwan on research projects to help the Company identify and recruit high-caliber professionals early. The Company also offers scholarships to well-performing students.

### Industry-Academia Collaboration and Scholarships in 2019

Project	Collaborator University	Department of Collaborator Professors
Industry-Academia Collaboration on Research and Development	National Chung Hsing University	Department of Chemical Engineering
	National Taiwan University of Science and Technology	Department of Materials Science and Engineering
	National Chiao Tung University	Department Of Materials Science and Engineering
	National Chiao Tung University	Department of Applied Chemistry
	National Tsing Hua University	Department of Chemical Engineering
	Chung Yuan Christian University	Department of Chemical
	Feng Chia University	Department of Electrical Engineering

Project	Collaborator University	Collaborating Department	No. of People Funded
2019 Student Scholarships	Chung Yuan Christian University	Department of Chemistry	3

Our employees in mainland China are active participants of community activities, such as the 2019 Boa'an International Marathon and Cleaning Wetland Environment events. Moreover, we also visit retirement and nursing homes where we hold charity activities that promote friendly and harmonious relations.

### 2019 Statistics of Donations: Fundraising Activity and Amount Donated

No.	Date Organized	Organizer	Name of Fundraising Activity	Description	Amount of Fund Raised (RMB)
1	2019/8/30	Longteng & Trade Unions	Scholarships for Underprivileged Students in Shenzhen	Granted funding to well-performing undergraduates from economically disadvantaged families to help them to complete their university studies.	60,000
2	2019/9	General Office of Commerce	Helping and Supporting Village Communities in Shenzhen	Provided charity donations to residents in Boa'an District for poverty reduction	225,000
3	2019/1	General Office of Commerce	Donating education funds to charity organizations in Huai'an	Donated education and development funds to charity associations in the Development Zone	200,000
4	2019/8	General Office of Commerce	Donations for supporting education in Huai'an	Donated five air conditioners to Kaiming Junior High School in Development Zone	46,000

Total: 531,000

### 2019 Sponsorship/Donations and Amount Sponsored/Donated

No.	Category	Activity	Description	Amount Sponsored/Donated (RMB)
1		Charity donations to disadvantaged groups in Shenzhen	Purchased essential supplies for environmental health workers from Luotian Community in Yanchuan	3,357
2	Charity events for disadvantaged groups	Charity donations to disadvantaged groups in Qinhuangdao	Purchased essential supplies for environmental health workers from Leshan Road Waste Compressor Station	5,256
3		Charity donations to disadvantaged groups in Huai'an	Purchased essential supplies for environmental health workers in Development Zone	5,003
4		Charity donations to disadvantaged groups in Yingkou	Purchased essential supplies for environmental health workers working in coastal industry base	5,152
5		Cleaning the environment in Shenzhen for a civilized city	Assisted in cleaning the Luotian Wetland Park, raised environmental awareness, and interacted with citizens	3,066
6	Cleaning activities	Cleaning the environment in Qinhuangdao for a civilized city	Assisted in cleaning the Forest Sports Park, hosted a movie day watching The Wandering Earth, raised environmental awareness, and interacted with citizens	3,360
7		Cleaning the environment in Huai'an for a civilized city	Assisted in cleaning Wetland Park of the Ancient Yellow River, raised environmental awareness, and interacted with citizens	3,300
8		Cleaning the environment in Yingkou for a civilized city	Assisted in cleaning the Minghu Park, hosted a movie day watching The Wandering Earth, raised environmental awareness, and interacted with citizens	2,090

## 2019 Sponsorship/Donations and Amount Sponsored/Donated

No.	Category	Activity	Description	Amount Sponsored/ Donated (RMB)
9		Donating educational supplies to students in Shenzhen for cultural inheritance	Donated books/musical instruments to Biaoshang School to help children to realize their dreams	5,429
10	Charity events for supporting education	Donating educational supplies to students in Qinhuangdao for cultural inheritance	Hosted charity sale, organized cultural performances on campus, and purchased educational supplies for underprivileged students	18,795
11		Donating educational supplies to students in Huai'an for cultural inheritance	Purchased musical instruments/office supplies and donated them to Meiling Elementary School in Lianshui County	8,084
12		Donating educational supplies to students in Yingkou for cultural inheritance	Purchased musical instruments/office supplies and donated them to Sunshine Hope Elementary School in Gaizhou City	6,836
13		Charity events for people with disabilities in Shenzhen	Paid a visit to Boa'an entrepreneurial service base for people with disabilities, and purchased handmade products from them to actualize their value in life.	3,103
14	Charity events for people with disabilities	Charity events for people with disabilities in Qinhuangdao	Paid a visit to impoverished children and families living in Qinhuangdao rehabilitation center for people with disabilities	3,499
15		Charity events for people with disabilities in Huai'an	Paid a visit to homes for disabled in Qinghe District, and purchased handmade products from them to actualize their value in life.	2,125
16		Charity events for people with disabilities in Yingkou	Paid a visit to impoverished children in special education schools and families in Yingkou City	2,648
17		Charity events for elderly people in Shenzhen	Paid a visit to elderly people living in nursing homes	3,295
18	Charity events for elderly people	Charity events for elderly people in Qinhuangdao	Paid a visit to elderly people in geriatric service centers in Haigang District	6,924
19		Charity events for elderly people in Huai'an	Paid a visit to elderly people in nursing homes in Heping Township, Qingjiangpu District	7,559
20		Charity events for elderly people in Yingkou	Paid a visit to families protected under the Five Guarantees System	5,072
				Total: 103,953



## 5-2 A Love-Filled Society: Sharing Stories

## 1/ Six Helps-Help the Elderly

According to a Chinese saying, "of all virtues filial piety is the most important". "Respect, love, and help the elderly people" are traditional virtues of the Chinese culture. To imbue our employees with these virtues, the Company has organized a series of charity activities to help the elderly people, and guide employees in learning the traditional culture and knowledge on filial piety, thereby creating an atmosphere filled with love and respect for the elderly people and an environment in which elderly people are respected with sincerity, loved with passion, and assisted with action.



Manufacturing Sites	Organizer	Name of Activity	Participants	Start/End Time	No. of Sessions	No. of Participants
Shenzhen	Longteng & Trade Unions	Social gatherings for geriatric nursing homes in Luotian, Yanchuan	Elderly people from nursing homes and volunteers	2019/10/22	1	45
Shenzhen	Longteng & Trade Unions	Giving words of blessings to mothers and fathers	Company employees	2019/10/17~10/18	2	1,850
Qinhuangdao	Longteng & Trade Unions	Volunteering in Haigang District geriatric service centers for elderly people	Elderly people of service centers and volunteers	2019/10/19	1	25
Qinhuangdao	Longteng & Trade Unions	Giving words of blessings to mothers and fathers	Company employees	2019/10/21~10/23	2	640
Huai'an	Longteng & Trade Unions	Volunteering in geriatric nursing homes in Heping Township	Residents of geriatric nursing homes and volunteers	2019/10/18	1	44
Huai'an	Longteng & Trade Unions	Giving words of blessings to mothers and fathers	Company employees	2019/10/15~10/17	3	520
Yingkou	Longteng & Trade Unions	Giving words of blessings to mothers and fathers	Company employees	2019/10/24	2	440
Yingkou	Longteng & Trade Unions	Providing volunteering service to people protected under the Five Guarantees System	Elderly people protected under the Five Guarantees System and volunteers	2019/10/26	1	25

Total: 3,589

## 2/ Six Helps- Help the Weak

The Company fulfills its social responsibilities by paying visits to orphanages and caring for socially disadvantaged groups. We give back to the society with love and action. Four of our manufacturing sites have simultaneously initiated a series of activities for helping disadvantaged people.



Manufacturing Sites	Organizer	Name of Activity	Participants	Start/End Time	No. of Sessions	No. of Participants
Shenzhen	Longteng & Trade Unions	Paid a visit to Bo'a'an entrepreneurial service base for people with disabilities	People with disabilities from Bo'a'an entrepreneurial service base and volunteers	2019/7/17	1	35
Qinhuangdao	Longteng & Trade Unions	Paid a visit to Qinhuangdao rehabilitation center for people with disabilities	Children and families with disabilities and volunteers	2019/7/12	1	55
Huai'an	Longteng & Trade Unions	Paid a visit to homes for people with disabilities in Qinghe District	People with disabilities, family members, and volunteers	2019/7/12	1	73
Yingkou	Longteng & Trade Unions	Paid a visit to special education schools in Yingkou City	Coastal industry base civil affairs officers and volunteers	2019/7/26	1	20

Total: 183

Manufacturing Sites	Organizer	Name of Activity	Participants	Start/End Time	No. of Sessions	No. of Participants
Shenzhen	Longteng & Trade Unions	Paid a visit to Yanluo Office environmental health workers	Environmental health workers and volunteers	2019/1/30	1	49
Qinhuangdao	Longteng & Trade Unions	Paid a visit to environmental health workers from Leshan Road Waste Compressor Station	Environmental health workers and volunteers	2019/1/30	1	72
Huai'an	Longteng & Trade Unions	Paid a visit to environmental health workers in Huai'an Economic and Technological Development Zone	Environmental health workers and volunteers	2019/1/26	1	75
Yingkou	Longteng & Trade Unions	Paid a visit to environmental health workers working in coastal industry base	Environmental health workers and volunteers	2019/2/19	1	50

Total: 246

## 3/ Six Helps- Help the Disabled

Four of our manufacturing sites have simultaneously initiated a series of activities for helping people with disabilities to find job opportunities and realize their self-worth. In turn, these activities help the Company to actualize its core value of "altruism", fulfill social responsibilities, support and assist people with disabilities, and spread feelings of love and warmth through our volunteers.



## 4/ Six Helps- Help Education

The Company encourages its employees to provide different volunteering services, such as teaching in interactive DIY classes at school, collecting donations, donating books, and establishing libraries. All of these activities can help children to broaden their horizon, expand their knowledge base, and grow and develop into well-rounded individuals. Four of our manufacturing sites have simultaneously initiated a series of activities for supporting children's education.



Manufacturing Sites	Organizer	Name of Activity	Participants	Start/End Time	No. of Sessions	No. of Participants
Shenzhen	Longteng & Trade Unions	Donated books/musical instruments to Biaoshang School	Students from Biaoshang School and volunteers	2019/6/10	3	160
Qinhuangdao	Longteng & Trade Unions	Hosted charity sale, organized cultural performances on campus, and purchased educational supplies	Hebei Vocational & Technical College of Building Materials and volunteers	2019/6/28	1	820
Huai'an	Longteng & Trade Unions	Purchased musical instruments/ office supplies and donated them to Meiling Elementary School in Lianshui County	Meiling Elementary School students and volunteers	2019/6/14	1	135
Yingkou	Longteng & Trade Unions	Purchased musical instruments/ office supplies and donated them to Sunshine Hope Elementary School in Gaizhou City	Shagang schools in Gaizhou City and volunteers	2019/6/13	1	400

Total: 1,515

## 5/ Six Helps- Help Transportation

To raise employees' road safety awareness, we impart knowledge on road safety, emphasize the importance of road safety, and make employees, local citizens, and students more aware of the importance of practicing safety and cultural concepts. Four of our manufacturing sites have simultaneously initiated a series of activities for ensuring road safety.



Manufacturing Sites	Organizer	Name of Activity	Participants	Start/End Time	No. of Sessions	No. of Participants
Shenzhen	Longteng & Trade Unions	No Violation Month activities & Collecting "likes" on WeChat and road safety awareness activities	Company employees	2019/9/27	3	335
Qinhuangdao	Longteng & Trade Unions	No Violation Month activities & Collecting "likes" on WeChat and road safety awareness activities	Company employees	2019/9/25~9/26	4	650
Huai'an	Longteng & Trade Unions	No Violation Month activities & Collecting "likes" on WeChat and road safety awareness activities	Company employees	2019/9/26~9/27	6	632
Yingkou	Longteng & Trade Unions	No Violation Month activities & Collecting "likes" on WeChat and road safety awareness activities	Company employees	2019/9/14~9/27	2	58

Total: 1,675

## 6/ Six Helps- Help the Disabled

We take actions to demonstrate the importance of environmental health and protect the health of the environment around our manufacturing sites. To foster environmental awareness in employees and beautify our homeland, four of our manufacturing sites have collectively launched a series of environmental cleaning activities in which volunteers are gathered to clean beaches and parks during their break time.



Manufacturing Sites	Organizer	Name of Activity	Participants	Start/End Time	No. of Sessions	No. of Participants
Shenzhen	Longteng & Trade Unions	Luotian Wetland Park cleaning and watching The Wandering Earth	Company employees	2019/4/10~4/28	2	88
Qinhuangdao	Longteng & Trade Unions	Forest Park cleaning and watching The Wandering Earth	Company employees	2019/4/10~4/20	2	109
Huai'an	Longteng & Trade Unions	Cleaning areas around the company and watching The Wandering Earth	Company employees	2019/4/11~4/13	2	116
Yingkou	Longteng & Trade Unions	Cleaning the Minghu Plaza Cleaning activity and watching The Wandering Earth	Company employees and their children	2019/4/14	1	37

Total: 350

# Comparison Table of the GRI Guideline Index

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<b>General Disclosure</b>			
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	102-5 Ownership and legal form	24	
	102-6 Markets served	24	
	102-7 Scale of the organization	24	
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	102-10 Significant changes to the organization and its supply chain	2, 3	
	102-11 Precautionary Principle or approach	37	
	102-12 External initiatives	90	
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	102-14 Statement from senior decision-maker	6	
	102-16 Values, principles, standards, and norms of behavior	9, 28, 34, 126	
GRI102: General Disclosures 2016	102-18 Governance structure	32	
	102-40 List of stakeholder groups	14	
	102-41 Collective bargaining agreements	111	
	102-42 Identifying and selecting stakeholders	14	
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	102-44 Key topics and concerns raised	16	
	102-45 Entities included in the consolidated financial statements	2	
	102-46 Defining report content and topic Boundaries	2	
	102-47 List of material topics	17	
	102-48 Restatements of information	N/A No restatement of information in 2019.	
	102-49 Changes in reporting	17	
	102-50 Reporting period	2	
	102-51 Date of most recent report	2	
	102-52 Reporting cycle	2	
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<b>Material topics</b>			
<b>Economic performance</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	17	
	103-2 The management approach and its components	29	
	103-3 Evaluation of the management approach	29	
GRI 201: Economic Performance 2016	201-3 Defined benefit plan obligations and other retirement plans	94	

GRI Standard	Disclosure No.	Page	Supplementary Description
<b>Anti-corruption</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	17	
	103-2 The management approach and its components	34	
	103-3 Evaluation of the management approach	34	
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	35	
	205-2 Communication and training about anti-corruption policies and procedures	35	
	205-3 Confirmed incidents of corruption and actions taken	35	
<b>Regulatory compliance</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	17	
	103-2 The management approach and its components	37, 82, 90	
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GRI 307: Environmental Compliance 2016	307-1 Non-compliance with environmental laws and regulations	82	
GRI 419: Socioeconomic Compliance 2016	419-1 Non-compliance with laws and regulations in the social and economic area	37, 90, 110, 127	
<b>Information disclosure and grievance system</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	17	
	103-2 The management approach and its components	14	
	103-3 Evaluation of the management approach	14	
<b>Anti-competition</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	17	
	103-2 The management approach and its components	37	
	103-3 Evaluation of the management approach	37	
GRI 206: Anti-competitive Behavior	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	37	
<b>Procurement and supplier management</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	17	
	103-2 The management approach and its components	40	
	103-3 Evaluation of the management approach	41	
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	41	
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	42	
	308-2 Negative environmental impacts in the supply chain and actions taken	42	
GRI 414: Supplier Social Assessment	414-1 New suppliers that were screened using social criteria	42	
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GRI Standard	Disclosure No.	Page	Supplementary Description
<b>Product quality</b>			
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	103-2 The management approach and its components	48	
	103-3 Evaluation of the management approach	51	
<b>Customer satisfaction</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	17	
	103-2 The management approach and its components	52	
	103-3 Evaluation of the management approach	54	
<b>Water Resource Management</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	17	
	103-2 The management approach and its components	71	
	103-3 Evaluation of the management approach	71	
GRI 303: Water and Effluents 2016	303-1 Interactions with water as a shared resource	72	
	303-3 Water withdrawal	72	
<b>Greenhouse gas and air pollution emissions</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	17	
	103-2 The management approach and its components	58, 62, 68	
	103-3 Evaluation of the management approach	61, 80, 82	
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emission	68	
	305-2 Energy indirect (Scope 2) GHG emissions	68	
	305-4 GHG emissions intensity	68	
	305-5 Reduction of GHG emissions	70	
	305-7 Nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ), and other significant air emissions	80	
<b>Wastewater and waste generation</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	17	
	103-2 The management approach and its components	58, 78, 80	
	103-3 Evaluation of the management approach	78, 82	
GRI 306: Effluents and Waste 2016	306-1 Water discharge by quality and destination	78	

GRI Standard	Disclosure No.	Page	Supplementary Description
GRI 306: Effluents and Waste 2016	306-2 Waste by type and disposal method	80	Due to the waste management practice of waste disposal companies, information on waste treatment methods (Item B) is not accessible at the moment. In future, we will strengthen communication with waste disposal companies to keep abreast of how they dispose of their wastes and where do their wastes end up in.
<b>Forced and coerced labor</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	17	
	103-2 The management approach and its components	95, 110	
	103-3 Evaluation of the management approach	95	
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	95	
<b>Occupational health and safety</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	17	
	103-2 The management approach and its components	96	
	103-3 Evaluation of the management approach	97	
GRI 403: Occupational Health and Safety 2016	403-1 Workers representation in formal joint management-worker health and safety committees	100	
	403-3 Workers with high incidence or high risk of diseases related to their occupation	102	
<b>Other Topics</b>			
<b>GRI 200: Economy</b>			
GRI 202: Market Presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	92	
<b>GRI 300: Environment</b>			
GRI 302: Energy 2016	302-1 Energy consumption within the organization	64	
	302-3 Energy intensity	66	
	302-4 Reduction of energy consumption	70	
<b>GRI 400: Society</b>			
GRI 401: Employment 2016	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	93, 107	
GRI 402: Labor/ Management Relations 2016	402-1 Minimum notice periods regarding operational changes	95	
	404-2 Programs for upgrading employee skills and transition assistance programs	112	
	404-3 Percentage of employees receiving regular performance and career development reviews	115	
GRI 404: Training and Education 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	55	

# Assurance Checklist

No.	Item	Target Information	Page	Applicable Standard
1	Number of suppliers audited for SER and results	<p>In 2019, we audited 36 suppliers onsite to evaluate their social and environmental responsibilities. According to the evaluation results, 5, 23, and 8 suppliers obtained green, yellow, and red rating, respectively<sup>(Note)</sup>.</p> <p>Note:</p> <ol style="list-style-type: none"> <li>1. The number of suppliers audited is based on the number of production sites.</li> <li>2. Total score=200; green=score &lt; 180; yellow= 160 &lt; score &lt; or equal to 180; and red=score &lt; or equal to 160. Green, yellow, and red mean that a supplier has passed, passed with condition, and failed the audit, respectively.</li> <li>3. Audit results are based on the initial audit result.</li> </ol>	44	<p>The number of suppliers audited onsite and results of onsite auditing for the year according to the Company's Supplier Social Responsibility Management Regulation. Items audited include labor, health and safety, and environment, code of ethical conducts, and management systems.</p>
2	Electricity usage and intensity	<p>The major business locations of our subsidiaries consumed 989,495 thousand kWh of electricity in 2019, and registered a power intensity of 29.67 (thousand GJ/million NTD)<sup>(Note)</sup>.</p> <p>Note: Sources of equation for calculating energy intensity and energy values</p> <ol style="list-style-type: none"> <li>1. Energy intensity=Energy value × Energy Used ÷ ZDT's Consolidated Revenue.</li> <li>2. Electricity energy value: 3,600 KJ/kWh.</li> </ol>	64	<p>Electricity bills by local power supply companies. Range of statistics includes Shenzhen, Huai'an, Huai'an Comprehensive Bonded Zone, Qinhuangdao, and Yinkou manufacturing sites. Intensity is calculated by dividing the energy value of electricity used by each manufacturing site by the consolidated revenues of ZDT.</p>
3	Hazardous waste usage and intensity	<p>The major business locations of our subsidiaries generated a total of 38,796 t of hazardous waste in 2019, registering a hazardous waste intensity of 0.32 (t/million NTD)<sup>(Note)</sup>.</p> <p>Note:</p> <ol style="list-style-type: none"> <li>1. Intensity of hazardous waste = Total hazardous waste generated ÷ ZDT's consolidated revenue.</li> <li>2. Hazardous wastes from Huai'an and Huai'an Comprehensive Bonded Zone are calculated by multiplying the unit weight of an empty container by the number of trips made to transport wastes.</li> </ol>	81	<p>Amount of waste transferred by each site in 2019 is calculated using information on the form for transfer of hazardous wastes from each manufacturing site. Range of statistics includes Shenzhen, Huai'an, Huai'an Comprehensive Bonded Zone, Qinhuangdao, and Yinkou manufacturing sites. Intensity is calculated by dividing the total amount of hazardous waste by the consolidated revenues of ZDT.</p>
4	No. of employees who received physical examinations before they start/during their time/after they resign from working dangerous jobs	<p>In 2019, a total of 14,466 employees received physical examinations before they start/during their time/after they resign from working dangerous jobs.</p>	102	<p>The number of employees received physical examinations before they start/during their time/after they resign from working dangerous jobs, as per the Company's Regulations for Filing and the Supervision and Care of Laborers' Occupational Health. Physical examinations for employees who work dangerous jobs may vary. Data statistics encompass Shenzhen, Qinhuangdao, Huai'an, Huai'an Comprehensive Bonded Zone, and Yinkou manufacturing sites.</p>
5	Total training hours and number of trainees	<p>In 2019, a total of 1,954,243 hours of training, including orientation training, management competency, professional competency, core competency, lectures, and inspirational courses, was provided to 658,158 participants.</p>	114	<p>Total hours of training courses established and completed and total number of trainees for the year as regulated by the company's rules on education and training management.</p>

# Independent Limited Assurance Issued by the Accountant



資誠

會計師有限確信報告

審查號字第 19009972 號

珠島科技股份有限公司 公司：

本公司所受珠島科技股份有限公司（以下稱「貴公司」）之委託，對一貴公司選定 2019 年度企業社會責任報告書所報導之績效指標執行確信程序。本會計師業已確信無事，並依據結果出具有限確信報告。

**確信標的資訊與適用基準**

有關 貴公司選定 2019 年度企業社會責任報告書所報導之績效指標（以下稱「確信標的資訊」）及其適用基準詳列於 貴公司 2019 年度企業社會責任報告書第 140 頁之「確信項目彙總表」。

**管理階層之責任**

貴公司管理階層之責任係依照適當基準編製企業社會責任報告書所報導之績效指標，並維持與績效指標編製有關之必要內部控制，以確保績效指標未存有導因於舞弊或錯誤之重大不實表達。

**會計師之責任**

本會計師係依國際確信準則公報第一號「非屬歷史性財務資訊查核或核閱之確信案件」，對確信標的資訊執行確信工作，以發發現前述資訊在所有重大方面是否有未依適用基準編製而導致修正之情事，並出具有限確信報告。

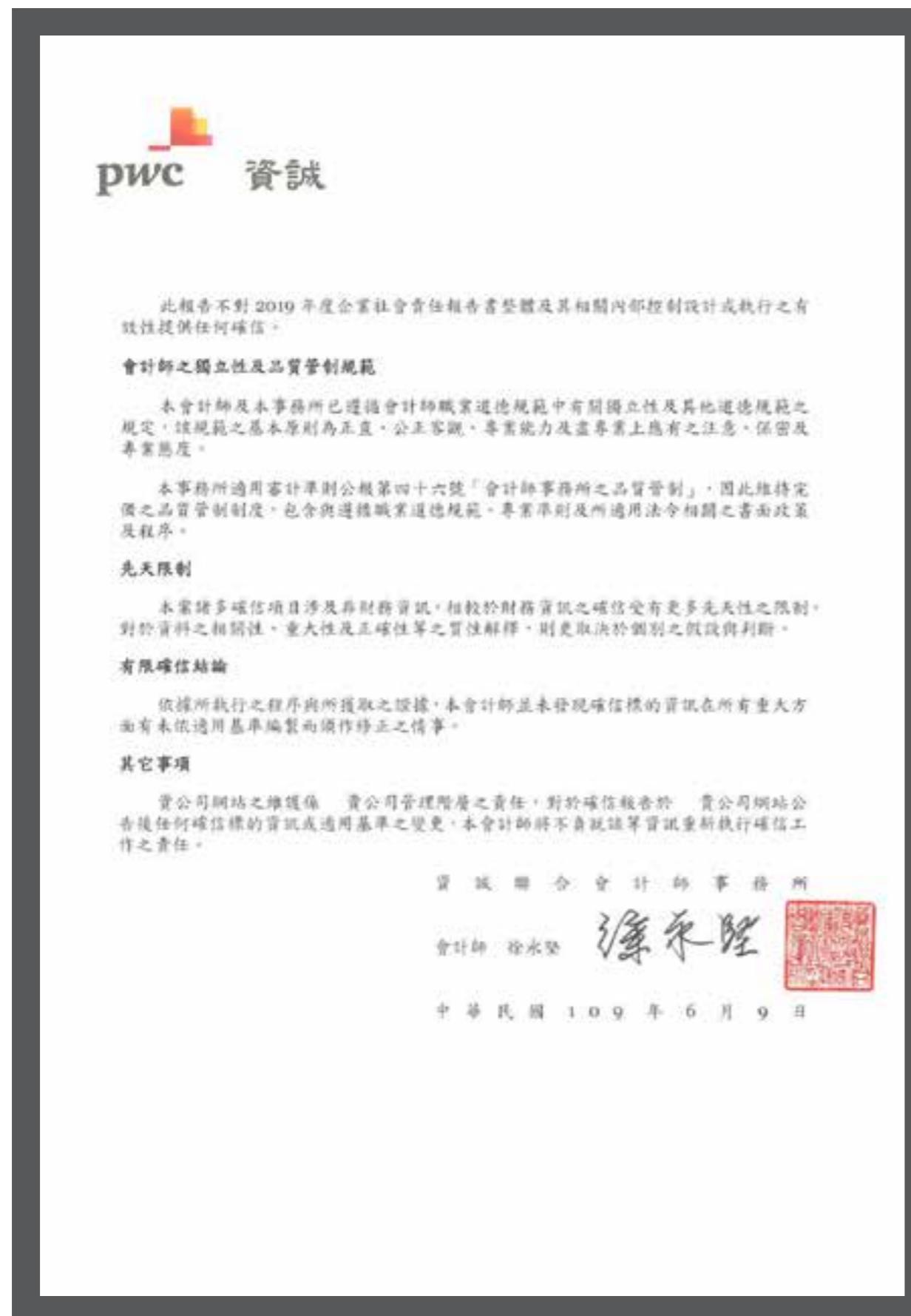
本會計師依照上述準則所執行之有限確信工作，包括辨認確信標的資訊可能發生重大不實表達之領域，以及針對前述領域設計及執行程序，因有限確信案件取樣之確信程度明顯低於合理確信案件取樣者，就有限確信案件所執行程序之性質及時間與適用於合理確信案件者不同，其範圍亦較小。

本會計師係依據所辨認之風險領域及重大性以決定實際執行確信工作之範圍，並依本委任案件之特定情況設計及執行下列確信程序：

- 對參與編製確信標的資訊之相關人員進行訪談，以瞭解編製前述資訊之流程、所應用之資訊系統(若適用)，以及相關之內部控制，以辨認重大不實表達之領域。
- 基於對上述事項之瞭解及所辨認之領域，對確信標的資訊選取樣本進行查詢、觀察、檢查及重新執行測試，以取得有限確信之證據。

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# Independent Limited Assurance Issued by the Accountant



2019  
CORPORATE SOCIAL  
RESPONSIBILITY REPORT





Developing technologies for the betterment of human beings  
Protecting the environment for a greener earth