

2018 CORPORATE SOCIAL RESPONSIBILITY REPORT

EINK HOLDINGS INC. 2018 CORPORATE SOCIAL RESPONSIBILITY REPORT



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Report Profile

● Editing Principles

This is the Corporate Social Responsibility (CSR) report published by E Ink Holdings, Inc. (E Ink). Currently, it is published in Traditional Chinese and English. In addition to a paper version, this report is available for download from the CSR section of E Ink's corporate website. The boundary of disclosure covers, in principle, our Hsinchu Plant and Linkou Plant in Taiwan, our Yangzhou Plant in mainland China, and our plant in the USA, which are our major points of operations. Information of the South Korea subsidiary has been included in the report to enrich the report contents. With this CSR report, we hope to disclose our efforts to pursue sustainable development and fulfill corporate social responsibilities for the public to understand more and better about E Ink and its products. We also hope that the public can give us suggestions, so that we can maintain our sustainable development and develop toward a world-class enterprise. All amounts mentioned in this report are calculated with the New Taiwan Dollar (NT\$). Amounts expressed in other currencies will be remarked separately.

● Reporting Period

This report discloses information regarding our CSR management approaches, material topics, responses, actions, and performance in fiscal year 2018 (January 1, 2018 to December 31, 2018). For readers to better understand relevant information, some contents have been traced back to 2014.

● Reporting cycle

E Ink publishes its CSR report on an annual basis.

The Traditional Chinese version of the previous issue (CSR Report 2017) was published in June 2018. The English version was published in October 2018.

The Traditional Chinese version of the current issue (CSR Report 2018) was published in June 2019. The English version was published in October 2019.

The Traditional Chinese version of the next issue (CSR Report 2019) will be published in June 2020. The English version will be published in October 2020.

● Reference Guidelines

E Ink applies the reporting framework in the GRI Sustainability Reporting Standards (GRI Standards) issued by the Global Reporting Initiative (GRI) and adopts the Core disclosure principle.

● Report Assurance

The Chinese version of this report was externally reviewed by Deloitte & Touche and a Limited Assurance Report was obtained. The report accords with the core GRI Standards and the standards of the Assurance of Non-historical Financial Information Auditing/Review and Guidelines for the Compilation and Declaration of Corporate Social Responsibility Reports of Publicly Listed Companies in the assurance reporting standards of the Accounting Research and Development Foundation.

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Report Download Link



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Letter from the Chairman and CEO

Apart from advocating ePaper's core value: make the world more energy-efficient and cleaner with ePaper, we promote the smart and paperless applications of ePaper in both everyday life and commercial scenarios to reduce paper use and minimize logging to achieve sustainable development through energy conservation and carbon reduction. With ePaper's bi-stable and reflective characteristics, we have earned credits worldwide for building the easy-on-the-eyes eReader. Through constant business optimization and expansion, we invest resources in plants and participate in social welfare activities worldwide to link to the ePaper's core value based on the operational strategy established in collaboration with partners in the ePaper ecosystem. We further implement various local care programs to fulfill our corporate social responsibilities through social welfare. We also correspond to the 17 Sustainable Development Goals (SDGs) set by the United Nations as the guidelines for countries in the world to implement sustainable development by 2030. Based on the core value of our products, we selected choose six SDGs* in 2016 as the goals for organizational, product, and business development. These SDGs encompassing three main aspects: economic growth, social progress, and environmental protection and complying with the environmental, social, and governance (ESG) criteria enable us to practice sustainable development in the economic, social, and economic categories in accordance with the SDGs.

Looking back at 2018, we were awarded three awards at the 11th Taiwan Corporate Sustainability Awards (TCSA): "Top 50 Corporate Sustainability Award", "Corporate Sustainability Report Award", and "Best Performance in Specific Categories—Social Inclusion Award". These awards recognize our efforts and achievements to "extend our contributions to social and environmental sustainability with the product's core value" in CSR practice. We are deeply honored!

Transparent and integral governance: Promoting corporate sustainable development with steady income

At the end of 2016, we successfully transformed to the R&D and manufacture of ePaper products, and both the management team and all employees have since been working persistently and gingerly for the company's steady growth. Upholding integrity and transparency in management, at the 2018 OTC Companies Governance Evaluation by the Securities and Futures Institute, we were ranked the Tier 2 (top 6-20%), which is a big step forward compared to the results in the previous year. This result also demonstrates our self-motivated practice in governance optimization.

In addition, for the company's sustainable development, we have constantly invested an average of 13% of the revenue every year in R&D over the past five years of so to enhance technological competitiveness, in order to make the edge-cutting and innovative ePaper technologies and product applications as the engine driving corporate sustainable development.

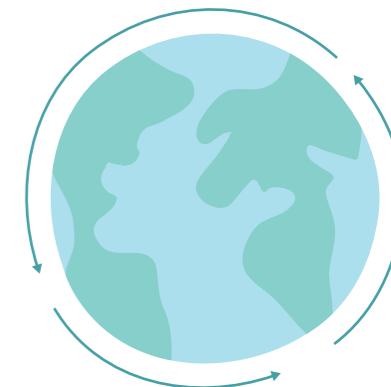
Subscription of most RECs in the industry: Supporting the sustainable development of the environment with ePaper's core value

In the sustainable development of the environment, apart from taking the initiative to constantly implement energy conservation, GHG reduction, and water resources recycling in our plants worldwide, we invest resources in enhancing

the efficiency of existing equipment and introduce pollution control equipment for environmental protection to reduce the environmental impacts of manufacturing activities to support the sustainable development of the environment.

In energy conservation, we persistently increase the use of renewable energy and subscribe green power and renewable energy certificates (RECs) to support green power development in Taiwan. By April 10, 2019, we have accumulated 948 T-RECs, the highest among all subscription enterprises, to demonstrate our determination to support green power and practice environmental protection in real actions.

To make the world more energy-efficient and cleaner by replacing traditional paper with ePaper is our vision. Apart from replacing paper books with the eReader, which is known to the public, we proactively develop ePaper technologies and product applications in collaboration with the supply chain, customers, and partners in different sectors. We have developed the electronic shelf label (ESL) for smart retailing and the smart bus stop info panel for smart transport to bring "a smart and paperless world" to a new pedestal. °



Corporate expertise and employment participation: Promoting e-reading with partners in the industry

In 2017, we launched the "e-Reading for the Future" eReader library program to pay back society with corporate resources in collaboration with supply chain partners using the eReader built with ePaper's blue-light-free and comfortable reading characteristics to provide students with a quality, focus, and easy-on-the-eyes e-reading experience and promote the development of literacy. After initiating the program at Taiwan HQ, we have implemented it in the Yangzhou Plant and South Korea branch to promote the eReader and eBook to the world and encourage students to engage in e-reading and e-learning. Aside from promoting social-inclusion with the "e-Reading for Future" program, we participate in various social welfare activities by combining organizational and employee resources based on the needs of the local society of individual plants. In 2018, Hsinchu HQ purchased eight m.t. of grade A bananas at a price higher than the retail price in collaboration with the Chuchi Farmers' Association in Chiayi to help banana farmers sell quality bananas and acquire higher income. The Yangzhou Plant in mainland China continued the Maitian Program to help rural students through fundraisers and in-kind donations within the organization. The USA Plant constantly engaged in community care and initiated fundraisers and in-kind donations within the organization to support local communities. The South Korea subsidiary Hydis engaged in the home renovation and cleansing service for elderly people living alone and vulnerable families, provided scholarships and career consultation to support education development and talent cultivation. By investing in funds and human resources, we engage in social welfare with employees to realize social inclusion and development. As an outlook, we will continue to proactively develop and innovate ePaper technologies and products provide employees with better benefits and career development, and promote the company's sustainable operations and growth through transparent and integral governance. We will also implement CSR activities and practice the three categories of sustainable development: economic, environmental, and social in collaboration with worldwide employees, supply chain partners, and ecosystem partners, and synchronize sustainable development within and outside of the enterprise to make E Ink a respectable, sustainable business.



Chairman Frank Ko
柯富仁

CEO Johnson Lee
李政昊

【Sustainable Development Column】 Connecting E Ink to the Smart New World



In correspondence to the 17 Sustainable Development Goals (SDGs) set by the United Nations, we selected choose six SDGs* in 2016 as the visions for ePaper product development. In 2018, we set "Connecting E Ink to the Smart New World" with ePaper applications over the Internet of Things (IoT) as the focus to develop unlimited possibilities with the six selected SDGs.



Compared to other display technologies, our ePaper display (EPD) uses the full reflective display technology, contains no backlight and blue light to irritate and harm the human eyes. As a user-friendly display technology, the ePaper can be also used in the healthcare field, such as blood sugar testers, smart drug dispensers, smart healthcare infotainment terminals, smart drug labels, and outpatient clinic signage.



The eReader is recognized as the best EPD technology so far. It can disseminate the knowledge and contents in paper books to all parts of the world to ensure the right to education of children in the rural and eliminate the education divide. In addition, the educational application of ePaper has been diversifying, making ePaper the next-generation education solution for its paper-like and easy-on-the-eyes characteristics.



ePaper is characterized by its ultralow power consumption performance. When displaying information for similar purposes, EPD can significantly reduce energy consumption and carbon emissions and the use and development of power installations to enhance energy efficiency.



Upholding the innovation and sustainability concepts, we constantly develop various EPD technologies and products for various applications. By developing various advanced technologies, we provide revolutionary products, better user experience, and higher environmental efficiency. We are also committed to clean production through selection of eco-friendly materials and strengthening the value chain of sustainable business through the co-prosperity and development with suppliers and customers in the ecosystem.



The lightweight, slim, flexible, low power-consumption, and sunlight readable features of ePaper enable the product to provide various possible solutions, such as transportation, architecture, culture, art, and public information display, for the sustainable development of smart cities. ePaper can further be combined with detectors and cloud storage to display data and information to become one of the system solutions for IoT and big data.



When replacing existing display technologies with EPD, the bi-stable characteristics featuring low power consumption and no power consumption for holding an image (always on) of ePaper can significantly reduce power consumption and carbon emissions and relieve the impact of global climate change caused by GHGs after long-term and extensive use. In addition, its "always on" feature makes EPD an ideal option for digital signage that displays disaster prevention and evacuation descriptions, as the escape information can still be displayed even power is shut down after a disaster occurs.

E Ink Glory

2014-2018

The Yangzhou Plant won the "Industrialization and Informatization Integration Management Demo Enterprise Award" from the Ministry of Industry and Information Technology of mainland China.

The Yangzhou Plant was ranked one of the "Best Ten Tax-Paying Enterprises", "Top 100 Industrial Enterprises", and "Best Ten Enterprises Above Designated Size",

and was awarded the "Grade A Tax Credit", "Special Contribution in Business Solicitation and Investment Introduction", "Model Unit for Integrity in Labor Protection", "Demo Base for Circular Economy Education", "Eco-Friendly Enterprise of Jiangsu", "Enterprise Technology Center", "Model Home for Employees", "Model Unit for Employment Promotion in Yangzhou City", "Development Zone Management Chief Quality Award", and "Jiangsu Province Demo Smart Workshop Award".



2014

The E Ink Spectra™ tri-color EPD won the 17th Outstanding Photonics Product Award from the Photonics Industry & Technology Development Association.



2016

The Hsinchu Plant was awarded the "Perspective Enterprise Award" at the "Green Power Appreciation Award" event from the Bureau of Energy, Ministry of Economic Affairs for purchasing 1 million kWh of green power, the third highest among all high-tech industries.



Color ePaper created a new milestone in EPD technology, the Advanced Color ePaper (ACeP) won the "Best in Show" award at the 2016 the Society for Information Display International Conference.



2015

The WPT EPD won the "Best Technology Award" at the 14th Gold Panel Awards organized by the Taiwan Display Union Association.



The E Ink Spectra™ tri-color EPD won the Silver Award at the Taiwan Excellence Award organized by the Ministry of Economic Affairs.



The Joan Meeting Room Assistant won the CES Best of Innovations Award at CES 2016.



The E Ink Prism(eFlow) won the SEG D* Global Design Award for its flexibility and random plasticity, making it an advanced technology material suitable architectural design.

Note: Society for Experiential Graphic Design (SEG D) of the USA is composed of members from 35 countries. The SEG D Global Design Award started in 1987 to focus on the expression of spatial and environmental design. It is an international award in the global design field.



The Wovin Wall of the E Ink Prism won the Best of NeoCon* award for its flexibility and color display, making it an advanced technology material suitable architectural design.

Note: NeoCon is the most important exhibition for business interior architecture.



2017

The 32-inch color EPD won the "Taiwan Excellence Gold Quality Award" from the Ministry of Economic Affairs.



The 6.1-inch non-geometric-shaped flexible wearable EPD won the Outstanding Product Award at the 2017 Gold Panel Awards organized by the Taiwan Display Union Association (TDUA) for demonstrating the plasticity of the flexible EPD.



Won the Gold prize of the Corporate Sustainability Report Award, electronics manufacturers category, at the 10th Taiwan Corporate Sustainability Awards 2017 with the 2016 CSR Report.



Awarded the Asia IP Elite prize by the world-leading magazine Intellectual Asset Management for three consecutive years since 2015



2018

Feb

Won the 2018 FLEXI Product Innovation Award for the success in building super-large public art with the E Ink Prism™ color changing ePaper technology for designers to create eco-friendly, durable, and visually exciting design works for DAZZLE to change the building and its image.



Aug

Won the Technology Excellence Award at the Gold Panel Awards 2018 for the Advanced Color ePaper (ACeP). By displaying images in true color with pigments without using filters, the ACeP sets a new milestone for EPD.



Oct

The USA Plant was awarded the manufacturer's award in Massachusetts and participated in the award presentation ceremony with over 50 enterprises at the Massachusetts State House to honor the manufacturers' contribution of the state.



Nov

Awarded three awards at the 11th Taiwan Corporate Sustainability Awards (TCSA): "Top 50 Corporate Sustainability Award", "Corporate Sustainability Report Award", and "Best Performance in Specific Categories—Social Inclusion Award".



Summary of Sustainable Development Performance in 2018

Economic

Governance

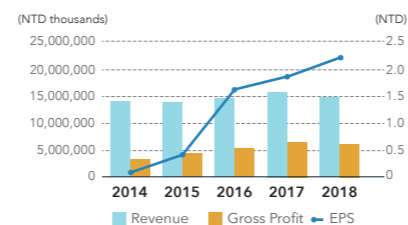
Chapter 2 Forward-Looking Navigation Strategy

- The average board meeting attendance rate was **96%**
- Currently, the board of directors (BOD) has eight seats, including **two independent directors** and **one female director**, with an average age of 56.75 years old.
- Ranked the top **6~20%** at the 5th Corporate Governance Evaluation.

Operational Performance

Chapter 2 Forward-Looking Navigation Strategy

- Revenue up to **NTD 14,208,661,000**
- Gross Profit **NTD 5,930,176,000**
- EPS **NTD 2.32**
- E Ink's ePaper has a dominant market share across the world.



Product and Service

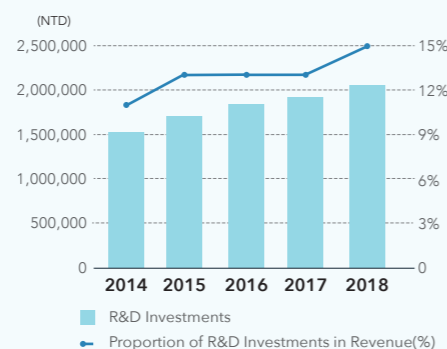
Chapter 3 Innovative Smart Experience

- By replacing the traditional labels/tags of all retail supermarkets in the USA with E Ink's ESLs, we may reduce logging of



- Constant development and expansion of ePaper application in the **smart retail** and **smart transportation** sectors.
- Average Customer Satisfaction: **86.5** points.

- R&D investments of about **NTD 2.072 billion**, up to **15%** of the revenue.



Sustainable Supply Chain Management

Chapter 4 Sustainable Green Co-Prosperity

- Suppliers "Integrity Undertaking" Signing Rate **94%**
- Supplier CSR Audit: **15 suppliers**
- Supplier Average Score: **89.09 points**

Environmental

Environmental Management System

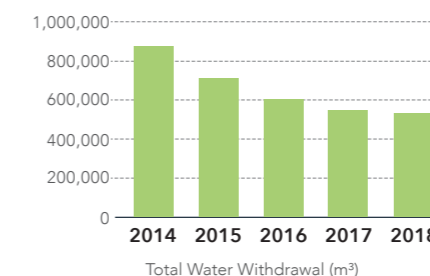
Chapter 4 Sustainable Green Co-Prosperity

- Plants in Taiwan and in Yangzhou of mainland China acquired the third-party certificate for **ISO 14001**, **ISO 50001**, and **ISO 14064-1**

Water Resources Management

Chapter 4 Sustainable Green Co-Prosperity

- Total Water Withdrawal: **522,265.3 m³**, **2.1%** less than in 2017;
- Total Reclamation Rate: **34.3%**.



Waste Management

Chapter 4 Sustainable Green Co-Prosperity

- Total Waste Recovery Rate: **36.73%**
- In response to the circular economy, the Yangzhou Plant promoted the ePaper Revitalization and Reuse Program and developed over **10** ePaper recycling plans with over **130** EPD panels.

Energy Conservation and Carbon Reduction

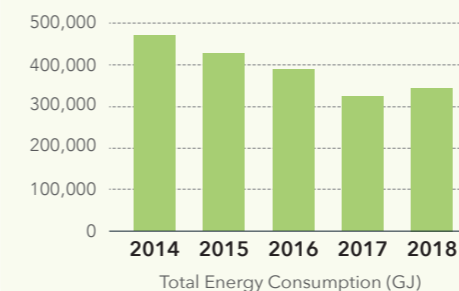
Chapter 4 Sustainable Green Co-Prosperity

- Total Energy Consumption **344,666GJ**

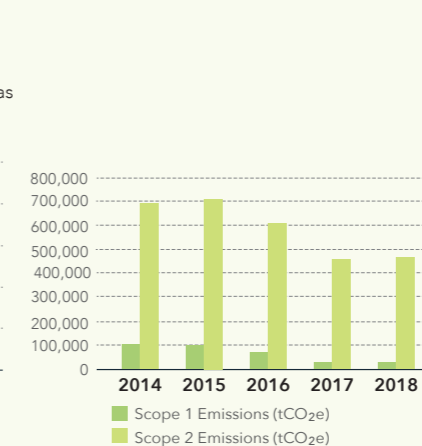
- Yangzhou Plant Accumulative PV Output **11.72 million kWh**

- Energy Conservation Projects Saved **332,000 kWh** of electricity.

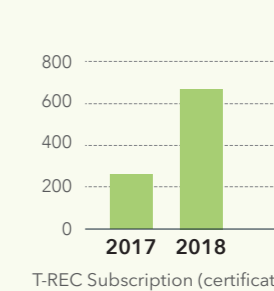
- The unit energy consumption of the Linkou Plant was **28%** less than in 2017.



- Total GHG Emissions: **49,380.80tCO₂e**, the emission intensity of the Linkou Plant was **50%** less than in 2017.



- T-REC Subscription: **686** certificates, accumulating to 948 certificates by April 10, 2019, the **most transactions** among all enterprises in Taiwan, accounting for **37%** of the total transaction volume.



Social

Employee Development and Care

Chapter 5 Happy Workplace Growth

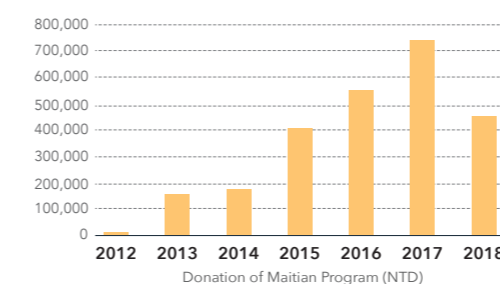
- Establishment of the "Human Rights Policy" with **100%** publication to new employees.
- Promoted the "teamwork" corporate culture organized the excellent team competition with **5** winning teams, each could win a prize up to **NTD 200,000** and would be commended.
- Developed **six core competencies** and a complete training and education map based on the E Ink DNA and organization's vision, value, and management philosophy to equip employees with all the competencies required for realizing the core value.
- Nearly **20,000** hours of various training and education activities for employees.
- Plants in Taiwan and in Yangzhou of mainland China acquired the third-party certificate of the **OHSAS 18001** occupational health and safety assurance system and **TOSHMS** Taiwan Occupational Health and Safety Management System.
- By the end of 2018, the Hsinchu Plant has accumulated a zero occupational injury record up to **662,018** hours, the Linkou Plant up to **221,769** hours, and the USA Plant up to **240** days.

Social

Social Engagement

Chapter 6 Care Toward an e-Future

- The Yangzhou Plant donated a sum equivalent to **NTD 450,000** in the Maitian Program.



- Introduced the volunteer service leave in 2017 for every employee to take paid volunteer service leave up to **one day eight hours**.
- Launched the "Read for the Future" program and promoted to Yangzhou in mainland China and South Korea; donated a total of **825** eReaders and a total of **251,935** volumes of e-books. The social return on investment (SORI) of the program in Taiwan reached **2.63**.
- The South Korea subsidiary and employees invested a total of nearly **NTD12 million** to support over **1,877** recipients from 79 schools in 42 cities.
- Employees of the USA Plant has voluntarily formed the Ad Hoc Philanthropic Committee (AHPC) and raised funds and materials equivalent to **NTD 200,000** to support local communities.



Chapter 01 Proactive Communication and Practice

1-1 Stakeholder identification

At E Ink, we identify stakeholders and material topics with respect to the AA 1000 Stakeholder Engagement Standard (AA 1000 SES), in order to understand the material environmental, social, and governance topics that concern stakeholders. After assessing stakeholders in terms of the following five aspects: dependency, responsibility, influence, diverse perspectives, and tension at a meeting with representatives of E Ink departments, the E Ink Corporate Social Responsibility Committee (CSR Committee) eventually identified nine stakeholder groups.

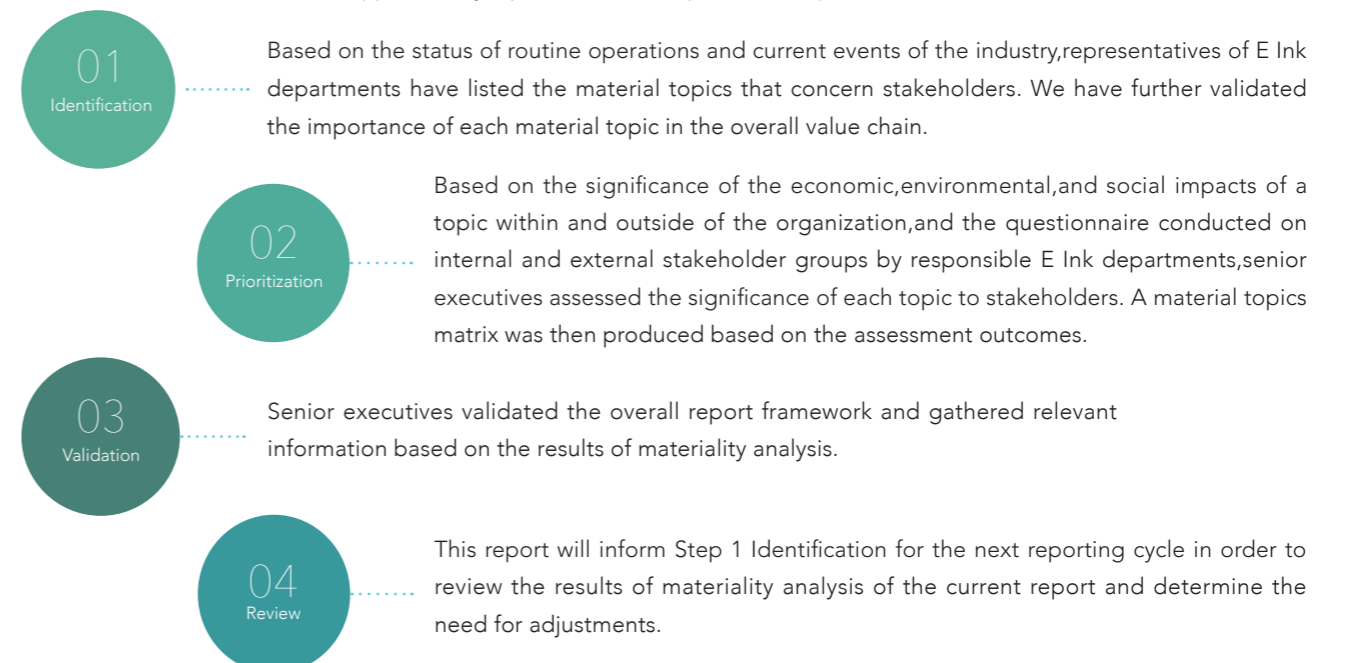
Attributes of Stakeholders	
Dependency	Groups or individuals who are directly or indirectly dependent on the organization's activities, products or services and associated performance, or on whom the organization is dependent in order to operate.
Responsibility	Groups or individuals to whom the organization has, or in the future may have, legal, commercial, operational or ethical/moral responsibilities.
Influence	Groups or individuals who can have an impact on the organization's or a stakeholder's strategic or operational decision-making.
Diverse Perspectives	Groups or individuals whose different views can lead to a new understanding of the situation and the identification of opportunities for action that may not otherwise occur.
Tension	Groups or individuals who need immediate attention from the organization with regard to financial, wider economic, social or environmental issues.

Types of Stakeholders	Significance to E Ink
Government	Apart from complying with the related laws and regulations of the government and competent authorities, we proactively cooperate with the government policies to fulfill our corporate social responsibilities.
Employees	Employees are an important asset that enables us to engage in continual innovation and advancement, and establishing a harmonious labor-management relationship is the only way to create value constantly.
E Ink Group	We maintain constant interaction with affiliates and follow related development policies.
Suppliers/ Contractors	Suppliers/contractors are our most important partners. Through constant management, interaction, and cooperation, we hope to create a more sustainable value chain.
Customers	By insisting on product quality and services, we hope to provide customers with the best solutions and grow with them together.
The Media	We proactively respond to the public through the media and endeavor to achieve information transparency.
Membership of associations (such as industry associations)	We continuously participate in the operation of industry associations, hoping to demonstrate our value in the industrial chain.
Shareholders/ Investors	We respect the opinions of shareholders/investors and treat such opinions as an important reference for continuous progress.
Local Communities/ Society	By expressing constant care about local communities, vulnerable groups, and schools, we demonstrate the CSR spirit and make insistent, positive contributions to society.

1-2 Identification and management of material topics

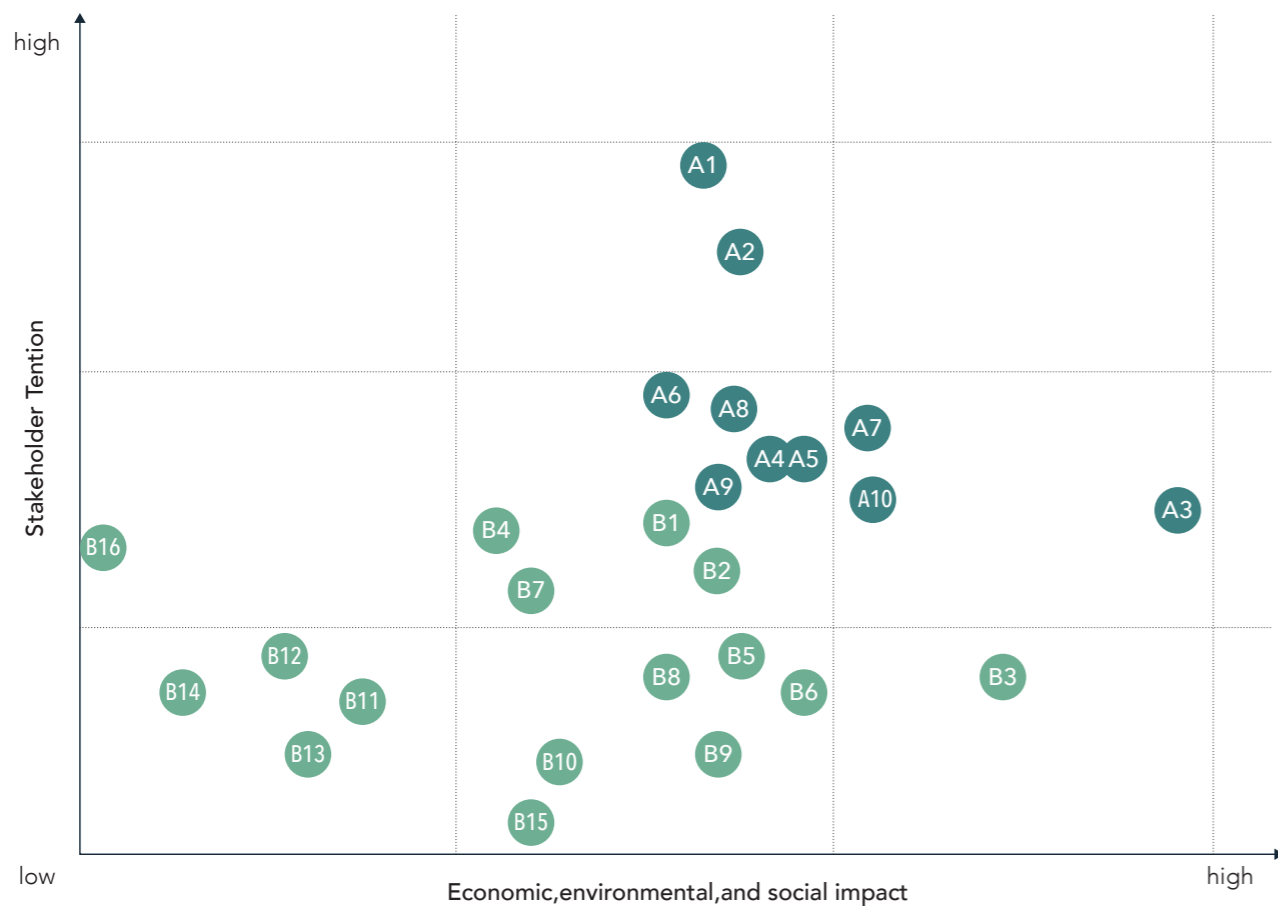
Process and outcomes of identification of material topics

To identify the report boundary and to ensure that the information disclosed in this report can best cover the topics and aspects that concern stakeholders, we have identified material topics with regard to the stakeholder groups identified above. Based on the methods for defining report contents and the principles for determining material aspects in the GRI Standards, with "the significance of a topic's economic, environmental, and social impacts on the organization" as the x-axis, four senior executives evaluated topics with significant impacts; and with "the influence on stakeholder assessments and decisions of a topic" as the y-axis, representatives of responsible E Ink departments assessed the topics that concern stakeholders with the questionnaire to discern the significance of a topic to stakeholders. In the questionnaire, we have distributed and collected 140 responses. After compiling the assessment results, we have identified E Ink's material topics. Information disclosures and future operational strategies in this report emphasize the response to the material topics and timely demonstrate the effectiveness of supplementary topics to fulfill the expectations of part of the stakeholders.



The matrix below shows the 26 material topics disclosed in our 2018 CSR report. After identification and prioritization, we have categorized them into 10 material topics and 16 supplementary topics.

In this report, we have disclosed all management approaches, strategies, and performance of core topics that are related to E Ink's key business items.	To fully respond to the needs of stakeholders, we have presented the relevant performance of supplementary topics.
A	B
Material Topics (10)	Supplementary Topics (16)
<ul style="list-style-type: none"> • Topics with the highest economic, environmental, and social impacts. • Topics of higher stakeholder tension 	<ul style="list-style-type: none"> • Topics with medium or mild economic, environmental, and social impacts.
<ul style="list-style-type: none"> A1 Compliance (legal) A2 Strategy for sustainable development A3 Innovation and application expansion A4 Business ethics and integrity A5 Management performance and financial performance A6 Risk management A7 Management of corporate brand and market presence A8 Product sustainability A9 Work environment safety and employee health A10 Product quality management 	<ul style="list-style-type: none"> B1 Strategic cooperation and partnership B2 Governance B3 Remuneration, benefits, and employee care B4 Management of chemicals and hazardous substances B5 Information security management B6 Supply chain management and procurement practices B7 Materials management B8 Labor-management relations B9 Talent attraction and employee training B10 Social welfare and local care B11 Management of energy and GHG emissions B12 Waste and recovery management B13 Grievance channels and communication mechanisms B14 Human rights and equality B15 Customer service and customer relationship management B16 Water Resources Management



Cross Reference of Material Topics and Boundaries of Topics and Value Chain in GRI Standards

Material Topic	Key Topic	Significance of Material Topics to E Ink	Value Chain					Corresponding Section
			E Ink Holdings Inc.	Customers	Shareholders/ Investors	Suppliers/ Contractors	Local Communities/ Society	
Compliance	Social, economic, and legal compliance in relation to environmental protection	With legal compliance as the basic principle, we disclose and address punishments in relation to environmental regulations, product regulations, and labor regulations.	●	●	●			2-3 Business ethics and integrity and sustainable governance 3-3 Quality persistence 4-1 Environmental protection
Strategy for sustainable development	N/A	To ensure sustainable development, we have established related policies and made strategic planning, including setting short-term, medium-term, and long-term goals, and action plans in economic, environmental, and social aspects.	●	●	●	●	○	1-3 CSR Visions and Strategic Management
Innovation and application expansion	N/A	With ePaper as the principal product, innovating and expanding product applications in order to maintain continual revenue growth and to build brand image have always been one of our core strategies. Apart from inputting organizational resources for R&D to make continual innovation of products and technologies, we expand the domains of product applications through collaboration with partners to continually cultivate and expand the market.	●	●	●	●		3-2 Technical and innovation capacity
Business ethics and integrity	Anti-corruption, anti-competitive behavior	In recognition of the importance of business ethics and integrity, we uphold related principles, including establishment and abidance of the code of business ethics, internal control, insider trading, intellectual property management, and personal information protection. We also prohibit corruption and competitive behaviors.	●	●	●	●	○	2-3 Business ethics and integrity and sustainable governance
Management performance and financial performance	Economic Performance	We are committed to making continual improvement of management performance and financial performance to fulfill the expectations of shareholders and investors.	●		●	●	○	2-4 Strategy focus and growth
Risk management	N/A	To timely respond to important trends and related risks, apart from identifying, managing, and preventing various operational risks, we conduct business within the acceptable risk level to ensure steady operations.	●	●	●	●		2-5 Risk Response 4-1 Environmental Protection Concept 5-4 Maintaining A Safe and Healthy Work Environment
Management of corporate brand and market presence	Indirect Economic Impacts	We continuously invest in campaigns for brand and image promotion to communicate our business philosophy, value, and corporate culture to the public and thereby enhance the understanding and support of stakeholders.	●	●	●		●	3-2 Technical and innovation capacity 5-2 Building A Positive, Beautiful and Happy Workplace 6-2 Mobile Care Hand by Hand
Product sustainability	N/A	ePaper is our main product. Compared to similar products, it is sustainable in terms of energy conservation, emissions reduction, and consumer health protection. In the future, we will continue to include sustainability in product design to minimize the negative impacts of products.	●	●	●			Sustainability Column 3-1 User-centered brand-new experience
Work environment safety and employee health	Occupational health and safety	Employees are the most important asset to E Ink. To ensure employee health and safety, apart from formulating occupational health and safety (OHS) management measures and policies, we have acquired OHSAS 18001 certification, aiming to maintain work environment safety and build a healthy workplace	●	○		●		5-4 Maintaining A Safe and Healthy Work Environment
Product quality management	Marketing and labeling	Insisting on providing quality products and services and fulfilling customer requirements through continual improvement, R&D, and innovation, we have acquired related quality certification and customer audits, including ISO 9001, SONY GP, and Amazon.	●	●	●	●		3-3 Quality Insistence

Note: ● stands for direct impact; ○ stands for indirect impact/business relationship

Stakeholder communication and engagement

Based on the stakeholder interaction in routine operations, E Ink departments identify and consolidate topics that concern stakeholders. In this report, we will address the concerns and expectations of stakeholders with respect to the related GRI Standards in respective sections. In addition, we will clearly disclose full information on special topics.

We have established individualized communication channels for different stakeholder groups, and accept and respond to the concerns and requirements raised by stakeholders.

Channels for and effectiveness of stakeholder communication

Stakeholders	Concerned Topic	Communication Channels and Frequency	2018 Concrete Communication Results
Government	<ul style="list-style-type: none"> Compliance Governance Human rights and equality Materials management Management of energy and GHG emissions Water Resources Management Waste and recovery management 	<ol style="list-style-type: none"> Documentary communication (irregularly) MPOS (upload and disclose relevant contents by aw) Gathering information from government websites (quarterly) Pollution control awareness meetings, regulation presentations, in-plant audit and interviews (irregularly) Routine/unannounced government inspections (irregularly) 	<ol style="list-style-type: none"> Participated in over 50 regulation presentations organized by government agencies. Upload/discard information by law. No severe non-conformity was reported in seven onsite government inspections (Yangzhou).
Employees	<ul style="list-style-type: none"> Labor/Management Relations Remuneration, benefits, and employee care Business ethics and integrity Work environment safety and employee health Talent attraction and employee training 	<ol style="list-style-type: none"> Labor-management seminar between employees and the management (quarterly) Labor-management meeting (quarterly) Employee Welfare Committee meeting/labor union meeting (regularly) Performance evaluation (monthly, annually) Internal mails and announcements (anytime) Employee training/education (irregularly) E Inker internal magazine/union monthly (monthly) Talks and seminars (irregularly) Department head box, labor union suggestion box, audit box (anytime) (irregularly) Trainee welcome party/farewell party (irregularly) Employee health preservation knowledge promotion (quarterly) 	<ol style="list-style-type: none"> 4 total employee seminars (Taiwan) and two employee seminars (Yangzhou) 4 labor-management meetings with consensus on 26 proposals. 4 Employee Welfare Committee meetings with resolutions on 18 proposals. One annual performance evaluation (Taiwan)/two annual performance evaluations (Yangzhou) Announced one president's message: Johnson message 150 employee training/education courses One E Inker/12 issues of the labor union monthly (Yangzhou) 7 health talks (Taiwan) 12 suggestions from the employee suggestion box, all were resolved Taiwan. 89 welcome/farewell parties (Yangzhou) 59 daily life guidance announcements (Yangzhou)
E Ink Holdings Inc.	<ul style="list-style-type: none"> Management of corporate brand and market presence Management performance and financial performance Product quality management Water Resources Management Work environment safety and employee health 	<ol style="list-style-type: none"> Board Meeting Senior Management Meeting (weekly) Project Meeting (irregularly) 	Held 5 board meetings, with average attendance of 96%.
Suppliers/Contractors	<ul style="list-style-type: none"> Innovation and application expansion Business ethics and integrity Strategy for sustainable development Supply chain management and procurement practices Management of corporate brand and market presence 	<ol style="list-style-type: none"> Supplier audits and visits (irregularly) QBR meetings (weekly) Supplier guidance and audits (annually) Production-marketing coordination meetings (weekly). Cost Reduction Meeting (annually) Procurement contracts, industrial safety training, in-house tour inspection Routine security work discussion meetings (weekly) 	<ol style="list-style-type: none"> Visited more than 5 suppliers monthly. QBR meetings with 8 suppliers and quality meetings with 5 major materials suppliers (Yangzhou) Supplier quality process audit (QPA)/ quality guidance for 19 suppliers (Yangzhou) QPA on 19 suppliers in Taiwan/onsite audit for 7 suppliers and documentary audit for 2 suppliers in Yangzhou Onsite assistants for materials problem settlement for 6 partners (Yangzhou). In-house business visits or work meetings at Yangzhou Plant for 3 suppliers each month (Yangzhou) Safety training/education activities for 31 construction contractors (Yangzhou).

Stakeholders	Concerned Topic	Communication Channels and Frequency	2018 Concrete Communication Results
Customers	<ul style="list-style-type: none"> Product quality management Strategy for sustainable development Information security management Business ethics and integrity Risk management Compliance Grievance channels and communication mechanisms Product sustainability 	<ol style="list-style-type: none"> Visits by sales staff and senior officers (irregularly) Business review meeting (weekly) Supplier quarterly business review (QBR) Customer Satisfaction Survey Form (annually) In-house audit by customers (irregularly) Customer questionnaire response (irregularly) Purchase Order Seminars and trade fairs (irregularly) Corporate website (regularly) 	<ol style="list-style-type: none"> Sales staff and senior officers visited each other 24 times to discuss technology development, product shipping, and delivery date of key parts and components. Five QBRs for heavyweight customers, each with ten participants from both parties. Teleconferences/onsite visits weekly on important customers to timely discuss and improve quality related problems. The recovery rate of the customer satisfaction survey form was 78.8 %, and the average score was excellent. The coverage of customer questionnaire was 100 %.
The Media	<ul style="list-style-type: none"> Strategy for sustainable development Governance Business ethics and integrity Risk management Management of corporate brand and market presence Management performance and financial performance Strategic cooperation and partnership 	<ol style="list-style-type: none"> Press release: Focus on ePaper technology and applications, business operations strategy and deployment, and financial statements (irregularly) Media activity: Investor conference (quarterly), AGM (annually), and exhibitions/shows/fairs (irregularly). Media interview (irregularly). Real-time media-requested services: Communication made chiefly through instant messenger (IM), telephone (landlines and mobiles) and addressed requests instantaneously (irregularly). 	<ol style="list-style-type: none"> Issued 18 press releases. Organized 8 media activities, including 4 investor conferences, 1 AGM, and 3 exhibitions/shows/fairs (Touch Taiwan, MWC Shanghai, China Smart City International Expo). Received 5 media interviews. Real-time response to media-requested services.
Membership of associations (such as industry associations)	<ul style="list-style-type: none"> Strategy for sustainable development Compliance Product sustainability Management of energy and GHG emissions Water Resources Management Waste and recovery management Management of chemicals and hazardous substances Work environment safety and employee health 	<ol style="list-style-type: none"> TTLA (Taiwan TFT LCD Association) Industry associations 	<ol style="list-style-type: none"> Participation in 6 TTLA HSE Committee meetings (Taiwan) Participation in 12+ HSE meetings of industry associations (Taiwan)
Shareholders/Investors	<ul style="list-style-type: none"> Strategy for sustainable development Compliance Management performance and financial performance Product quality management Supply chain management and procurement practices 	<ol style="list-style-type: none"> Board Meeting (at least once quarterly) General meeting of shareholders (annually) Investor conference (quarterly). Monthly revenue announcement (monthly) Financial statement (quarterly) Investor Relations section on the corporate website (irregularly) Disclosure of material information and financial statements (irregularly) on the Market Observation Post System. Press release (irregularly) 	<ol style="list-style-type: none"> Held 1 general meeting of shareholders attended by shareholders representing 78.84% of the totally issued shares. Held 7 investor conferences to debrief E Ink's financial and sales information. Reported financial statements by the law 4 times. Published 48 material messages by the law.
Local Communities/Society	<ul style="list-style-type: none"> Remuneration, benefits, and employee care Product sustainability Management of chemicals and hazardous substances Talent attraction and employee training Strategy for sustainable development 	<ol style="list-style-type: none"> Report to government agencies (anytime) Grievance line (anytime) Surveyed the opinion of nearby residents for construction projects (irregularly). 	<ol style="list-style-type: none"> Participated in the industrial safety and environmental activities organized by the HSP Bureau. Received no complaint from neighboring/nearby residents.

Material topic management approaches

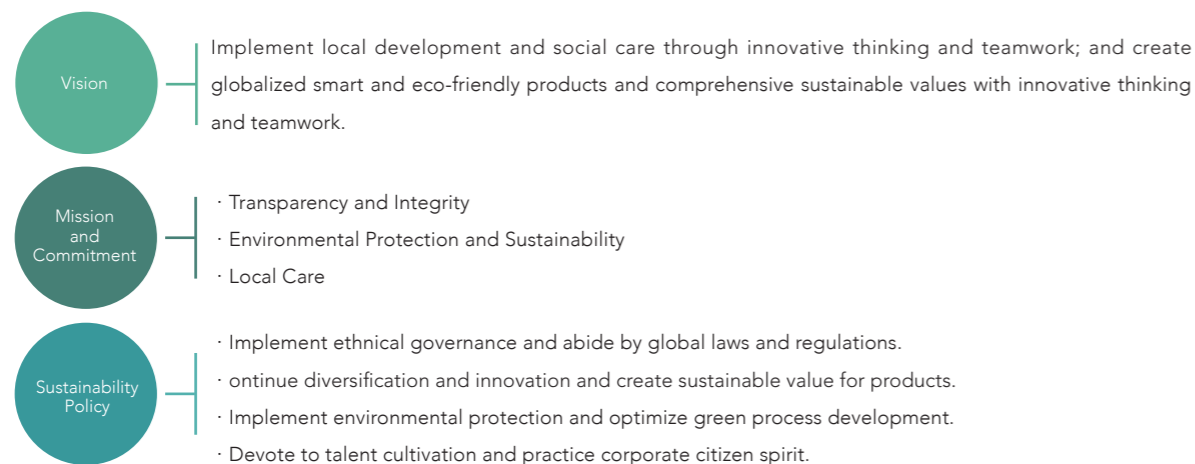
At E Ink, we have established processes or countermeasures for the routine management of various material topics. The table below shows these processes and countermeasures presented in accordance with relevant requirements in the GRI Standards. Please refer to the corresponding sections for the details of respective management approaches.

Aspects	DMAs	Assessment Mechanism/ Result	Corresponding Sections	Page	
Economic	Economic Performance	<ul style="list-style-type: none"> Continue to develop new technologies, cultivate more application domains, and further develop the ePaper market through consumer electronics (CE) and the Internet of Things (IoT). Establish an Audit Committee. 	<ul style="list-style-type: none"> Review the organization's economic performance regularly at business meetings Disclose complete information by law in financial statements and annual reports. 	2-4 Strategy focus and growth	30-31
	Indirect Economic Impacts	<ul style="list-style-type: none"> Plan social welfare engagement and cooperation with local NGOs and schools. 	<ul style="list-style-type: none"> The social return on investment (SORI) of the "Read for the Future" program is every NTD1 to NTD2.63. 	6-1 Social inclusion 6-2 Mobile Care Hand by Hand	94-103
	Anti-Corruption	<ul style="list-style-type: none"> Establish the code of business conduct, reinforce awareness education, and include the code in the annual audit program for management. 	<ul style="list-style-type: none"> No corruption was reported in 2018. 	2-3 Business ethics and integrity and sustainable governance	27-28
Environmental	Anti-competitive Behavior	<ul style="list-style-type: none"> Establishing reporting and grievance mechanisms 			
	Compliance	<ul style="list-style-type: none"> Keep track of legal requirements and update relevant regulations periodically, and organize education and training activities. Establish an environmental grievance mechanism based primarily on local laws and regulations. 	<ul style="list-style-type: none"> Plants in Taiwan and in Yangzhou perform the compliance audit every year. No serious penalty was reported in 2018. 	4-1 Environmental protection	54-55
Social	Occupational Health and Safety	<ul style="list-style-type: none"> Establish the HSE policy and arrange employee health examinations, occupational hazard health examinations, and relevant talks, training/education activities 	<ul style="list-style-type: none"> The zero-disaster of the Hsinchu Plant accumulated 662,018 hours, the Linkou Plant 221,769 hours, and the USA Plant 240 days. 	5-4 Maintaining A Safe and Healthy Work Environment	88-93
	Marketing and labeling	<ul style="list-style-type: none"> Conduct customer satisfaction periodically and include customer feedback as the reference for future planning. 	<ul style="list-style-type: none"> Manage and verify the content of marketing communications with the internal audit mechanism. 	3-3 Quality Insistence	46-51
	Socioeconomic compliance	<ul style="list-style-type: none"> Keep track of legal requirements and update relevant regulations periodically, and organize education and training activities. Establishing reporting and grievance mechanisms 	<ul style="list-style-type: none"> No serious penalty was reported in 2018. 	2-3 Business ethics and integrity and sustainable governance	28-29

1-3 CSR Visions and Strategic Management

E Ink Sustainability Policy

As a specialist ePaper display (EPD) research and development, design, and manufacturing company, E Ink has undergone steady operations for years and several transformations before achieving today's success. Upholding the belief in "accountability, creativity, participation" and the "One Team, One E Ink" organizational motto, we develop new-generation sustainable products and make contributions to change the human life and create social value. It is our commitment to investing in resources and making aggressive contributions and continual improvement in consideration of the following aspects, hoping to fulfill our corporate social responsibilities and uphold our determination to sustainable development.

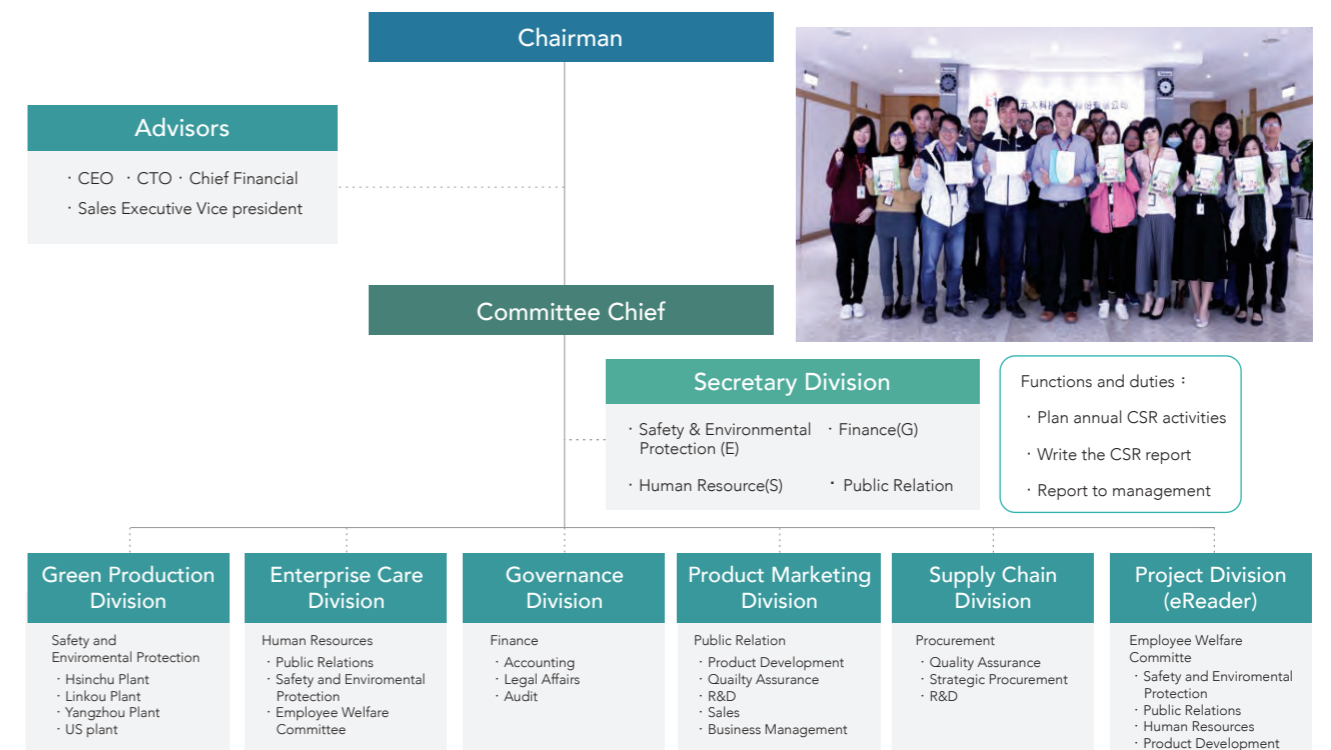


In response to our sustainability vision and policy, we have drawn up related strategies, promotion approaches, and implementation plans. We have also reviewed the status of implementation regularly to progressively practice business sustainability in collaboration with the CSR Committee.

SDGs	E Ink Sustainability Strategy		2018 Strategy Implementation Achievements
	Mission and Commitment	Medium/Long-Term Goal	
	Transparency and Integrity	<ul style="list-style-type: none"> Develop a corporate culture of ethics and integrity Abide by global laws and regulations 	<ul style="list-style-type: none"> Rated the top 6-20% in the 5th Corporate Governance Evaluation Discerned the topics that concern the 9 major stakeholder groups with questionnaire. Completed training/education relating to anti-corruption for all newcomers and zero corruption report. No non-compliance with environmental laws and regulations was reported in
	Environmental Protection and Sustainability	<ul style="list-style-type: none"> Design low-carbon and sustainable products. Promote low-carbon processes and resource management. Implement supply chain management for sustainability and co-prosperity 	<ul style="list-style-type: none"> ePaper products are characterized by their total reflection, easy-on-the-eyes design, and low power consumption features to significantly reduce energy consumption to achieve energy conservation. Linkou Plant product unit energy consumption reduced by 28% from 2017. Materials were 100% environmentally compliant and qualified. Performed CSR audits on 15 suppliers.
	Local Care	<ul style="list-style-type: none"> Build a workplace for adaptive development of talents. Maintain a healthy and safe work environment. Deepen trust relationship with stakeholders and maintain local contributions. Maintain community participation through core competency integration. 	<ul style="list-style-type: none"> Offered over 20,000 hours of various training/education courses for employees. By the end of 2018, zero occupational injury of the Hsinchu Plant accumulated 662,018 hours, the Linkou Plant 221,769 hours, and the USA Plant 240 days. Donated a total of 35,000 e-books in 350 eReaders, each pre-loaded with 100 e-books, under the "Read for the Future" program to produce a SROI up to 2.63.

CSR Committee

In early 2016, we established the CSR Committee to implement and realize sustainable development through organized management. To continuously enhance the awareness of sustainable development in seed employees, we continually promote internal training/education and arrange discussion of related tasks based on the duties of individual functional groups and plan and implement sustainable activities to constantly promote CSR and sustainable development work. In response to the growing importance of the industry ecosystem, we added the Supply Chain Section in 2018 to enhance communication and cooperation with suppliers to achieve the goal of sustainable development and co-prosperity.



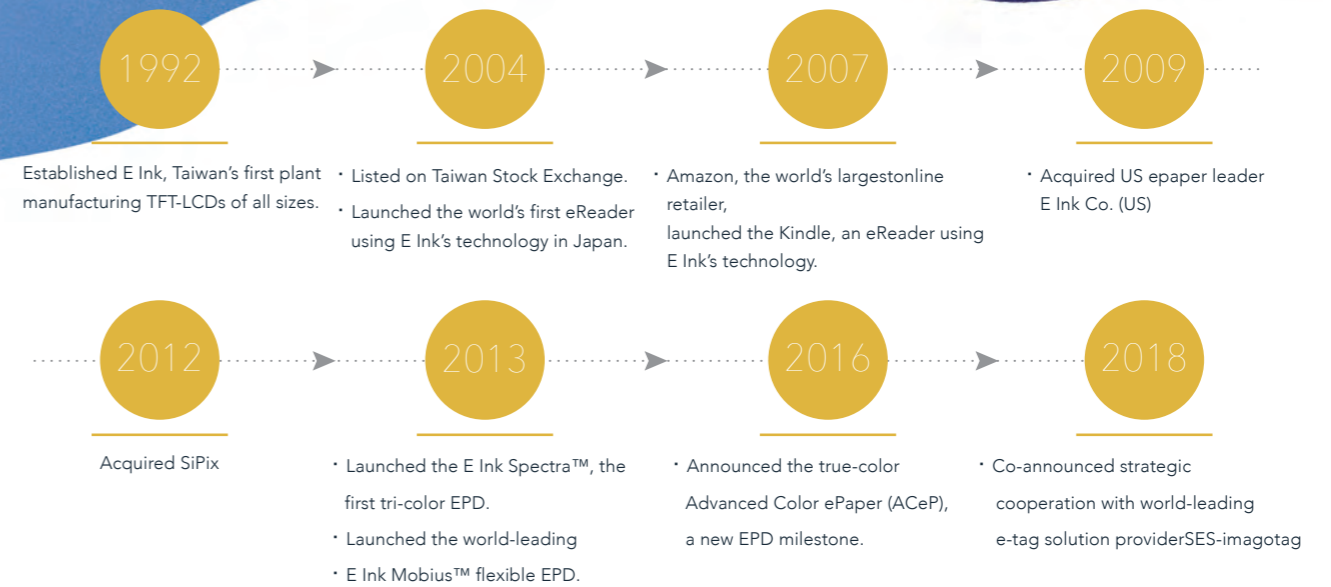


Chapter 02

Forward-Looking Navigation Strategy

2-1 E Ink Chronicles

History	June 16, 1992	Established
	Dec 1995	The Hsinchu Plant with a monthly design capacity of up to 6,000 pieces was completed.
	Jan 1997	Hsinchu HQ Building was completed.
	Sep 2001	Expanded equipment to raise monthly capacity to 36,000 pieces.
	Mar 2004	Officially listed on TPEX on March 30.
	May 2005	Acquired Philips' EPD business.
	Oct 2006	Established the US subsidiary to expand to the US sales network.
	Jul 2008	Acquired shares of Hydis Technologies Co., Ltd. on July 4.
	Dec 2009	Acquired 100% shares of E Ink USA.
	Jun 2010	Changed the company's English name to E Ink Holdings Inc.
	Nov 2012	Acquired shares of SiPix for its Microcup® technology and patents to broaden and integrate E Ink's EPD patent deployment.
	May 2013	Announced the E Ink Spectra™, a tri-color EPD including red, black, and white.
	Jan 2015	Announced the E Ink Prism™ color EPD technology.
	May 2016	Announced the Advanced Color ePaper (ACeP).
	Apr 2017	Established a joint venture company Linfny Corporation in collaboration with Sony Semiconductor Solutions Corporation to operate the EPD business.
May 2018	Launched strategic cooperation with SES-imagotag to deepen the IoT market deployment.	



2-2 Global deployment

Established in 1992 in Hsinchu Science Park, E Ink is Taiwan's first TFT LCD manufacturer. In view of the rising demand for TFT-LCD in 2002, we further established Transcend Optronics in Yangzhou, China, to specialize in the production and manufacture of panel modules for terminal equipment manufacturers.

In addition, the emergence of digital publication and the development of digital contents in the 1990s gave rise to the concept of an emerging display—ePaper. E-paper has started a new trend across the world for its great number of useful characteristics: paper-like legibility, easy-on-the-eyes, energy efficient, long standby time, and viewable under sunlight. Foreseeing the future development of ePaper, E Ink took the lead to start the research, development, and production of ePaper and acquired Philips' ePaper business in 2005 to become the world's largest ePaper manufacturers and suppliers.

Realizing that the existing capacity could no longer meet the future market demand, E Ink acquired TFT-LCD manufacturer Hydis Technologies of South Korea in 2008. After acquiring US key e-ink technology proprietor E Ink in 2009, E Ink has completed the integration of the ePaper production chain covering e-ink, ePaper panel, and ePaper module manufacture through the professional division of labor among US E Ink, E Ink, and Transcend Optronics.

The continuous heat of the eReader has raised the market demand for ePaper. In 2012, we further acquired SiPix producing micro-cup e-ink film in Linkou to complete our global ePaper production capacity. With the Linkou Plant in Taiwan and the South Handley Plant in the USA as bases, we manufacture the key component—FPL film for Transcend Optronics in Yangzhou to continue with the back-end module manufacture. Through distribution by sales locations across major markets (Hsinchu HQ, Linkou, Shenzhen, Tokyo in Japan, Seoul in South Korea, and Billerica in the USA) and the R&D centers (Hsinchu HQ, Linkou, and Fremont in the USA) that constantly introduce technological breakthroughs, we integrate R&D, manufacture, and sales to steadily supply products to worldwide leading enterprises, such as Amazon, Kobo, and so on, with edgy technology, excellent products, and mature mass-production know-how. The ePaper used by world-leading eReaders are produced by E Ink.

After becoming a leader of eReader, we began to progressively extend to other fields. Following the success of the three major inventions in 2015: color ePaper, rollable ePaper, and reference design (development and assessment kits), we turned to the e-Note, the electronic shelf label (ESL), and signage, our three core growth engines, in 2016 after related technologies were ready, in order to promote the steady business growth. In addition to the steady growth of ESL sales in 2017 and 2018, we launched e-Note related products in collaboration with branded manufacturers, such as Sony and Fujitsu of Japan, remarkable of Europe, Lenovo and Zhangyue of China, and so on, which have won credits from the education and professional application markets. Growth is also seen in the signage in the transportation sector. For example, related products are seen in the info panel of demo bus stops in Taipei City and New Taipei City of Taiwan, Shanghai of China, and Sydney of Australia; the digital license plate in California of the USA; and transit advertising in Germany.

The trend of the Internet of Things (IoT) has been confirmed and related products have begun to thrive in recent years. Apart from singling out the ePaper niche: ultralow power consumption, viewable under direct sunlight/strong light, continuous display without consuming power, and so on, the strict energy consumption demand and the outdoor use environment of IoT products will create more applications for the product.

In addition to incessantly optimizing existing strengths, we constantly invest in R&D resources. By combining expertise in material science, chemistry, electronics, electrical engineering, and mechanical engineering, after announcing the true-color color ePaper technology in 2016, R&D personnel successfully launched the true-color color EPD through technological breakthroughs in 2018, enabling the company to expand the scope of ePaper applications.

Looking to the future, we will never stop investing in technological R&D to accumulate technical capacity; lead the technology; promote ePaper's application in smart retail, smart transportation, and smart education; and expand the ePaper application to new sectors including smart office, smart logistics, smart factory, smart healthcare, intelligent building, and smart home.

Worldwide Presence ASIA



- E Ink (Headquarters)**
RD, sales, and application service HQ No. 3 Lixing 1st Road, Hsinchu Science Park Hsinchu City, Taiwan 300
- E Ink Linkou Plant**
ePaper manufacturing plant Sales and application service office No. 199, Hwaya 2nd Road, Kueishan District, Taoyuan City, Taiwan 33383
- E Ink Transcend Optronics**
Module Plant No. 8, Wuzhou West Road, Economic and Technological Development Zone, Yangzhou, Jiangsu Province, PRC
- E Ink Shenzhen Office**
Sales and application service office
- E Ink Japan Office**
Sales and application service office 6F, Shinjuku Mitsui Building No.2 3-2-11 Nishishinjuku Shinjuku-ku, Tokyo, 160-0023, Japan
- E Ink South Korea Office**
Sales and application service office 9F, Urbanbench Bldg., 325, Teheran-ro, Gangnamgu, Seoul, 06151, Korea



NORTH AMERICA

- E Ink Corporation (Billerica, MA USA)**
R&D, sales, and application service office 1000 Technology Park Drive, Billerica, MA 01821 USA
- E Ink South Hadley Site**
Sales & Operation location 7 Gaylord Street South Hadley, MA 01075
- E Ink Fremont Site**
RD center and sales location 47485 Seabridge Drive Fremont, CA 94538 USA



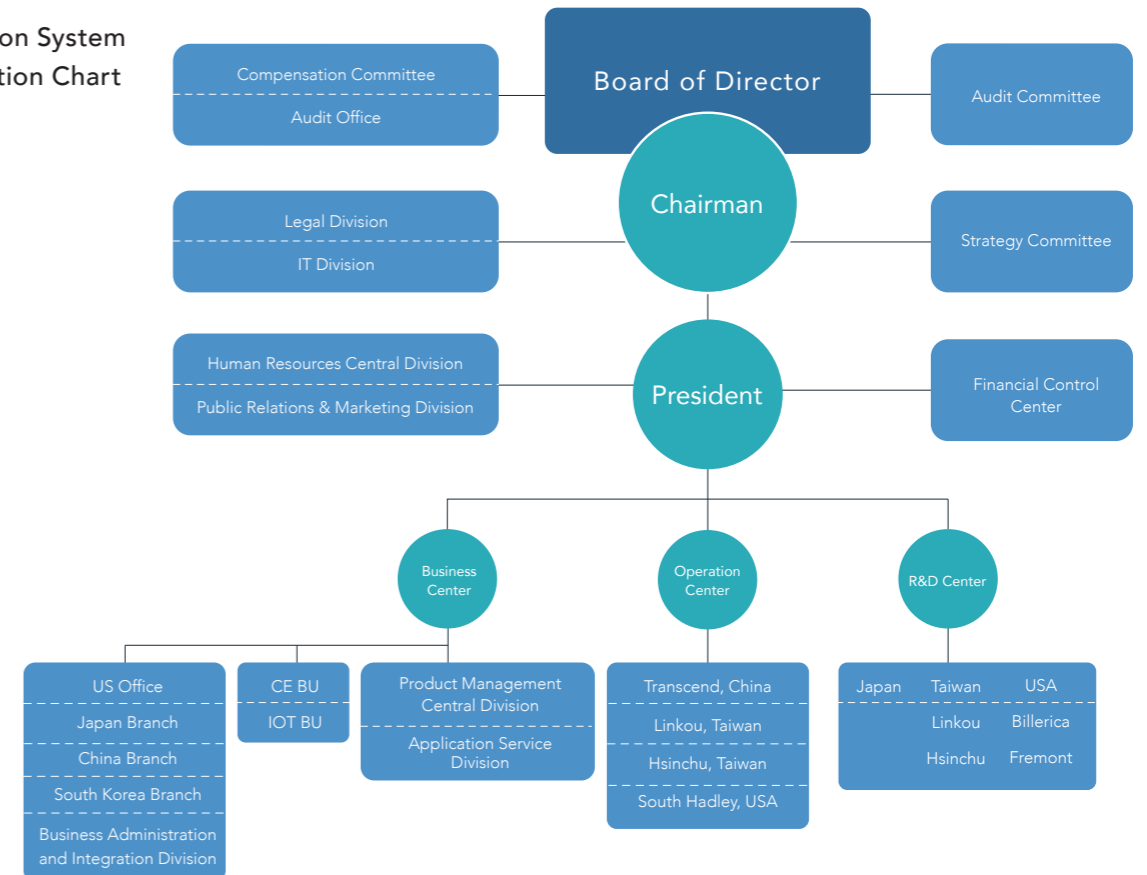
Name of organization	E Ink Holdings Inc.
HQ location	Taiwan Hsinchu Science Park (HSP), No. 3, Lixing 1st Road, Hsinchu Science Park, Hsinchu City, Taiwan
Major product or service ranges	Research, development, manufacturing, and sale of materials and displays relating to ePaper, such as the FPL film and ePaper display (EPD).
Major countries or markets served	The USA, Europe (Germany and France), Russia, Japan, and China
Number and distribution of sales locations	We have eight sales locations, including Hsinchu and Linkou in Taiwan; Yangzhou and Shenzhen in China; Billerica and Fremont in the USA; Japan; South Korea.
Nature of ownership and legal form	E Ink Holdings is a company limited by shares founded in Taiwan in June 1992 and was officially listed on the Taipei Stock Exchange (TPEX: 8069) in March 2004.
Total number of employees	Taiwan: E Ink (933), YHMI (19) Mainland China: Yangzhou Plant (1,202)* and Shenzhen Office (13) USA- EIC (388) South Korea- Hydis, EIK (17) Japan- EIJ + Linfinity (37)
Total Assets	Total Equity: NTD28,314,444,000 Total Liabilities: NTD8,599,664,000 Total Assets: NTD36,914,108,000
Sales	Domestic: 1,053K Export: 19,357K

*including direct labor and interns

2-3 Ethical management and sustainable governance

Organization Framework

1. Organization System (1) Organization Chart



(2) Organizational Functions

Chairman's Office (including the Audit Office, Legal Division, IT Division)

Plan operational strategies and goals; plan and implement internal control; administer legal affairs and plan and manage document control; plan IT deployment and implement new IT.

President's Office (including the R&D Center, Operations Center, Finance Center, Human Resources Central Division, Public Relations & Marketing Division, Industrial Safety Department, and Environmental Protection Department)

Lead, coordinate and operate the company's four major centers and branches to achieve the company's goals and strategies. Lead overall business development, make decisions, implement strategies and evaluation, establish operational regulations, and supervise re-investments. Develop market presence and contact the media; plan, implement, and supervise public affairs, such as international exhibitions and product promotional activities; plan and implement human resources affairs and public affairs; and plan and implement industrial safety and environmental plans.

R&D Center

Research, develop, and innovate ePaper-related technologies and products and implement mass production, including the R&D of new

types of ePaper; patent deployment and planning; design of leading-edge panels and R&D of process technology; development of process technology for new platforms and modules; and introduction of key materials, parts, and components. Provide reference designs of terminal application products for customers; develop e-paper system products; and assist customers on quick design for mass production.

Operational Center

Plan, implement, and supervise the procurement of raw materials for products, equipment, and projects; plan raw material requirements and manage bonds and logistics; ensure the quality and reliability of raw materials and products; manage and implement production planning; analyze the product process in the product manufacturing process and plan and implement process management.

Financial Control Center

Plan and implement finance, accounting and operational management.

Business Center (including the CE BU, IoT BU, Application Service Division, Product Management Central Division, and Integrated Business Management Division)

Control global business management and strategic policies; control global PM production planning and strategic policies; lead FAE to propose efficient design-in schedules to customers and shorten customer development lead-time, establish product roadmaps, achieve sales targets, and establish, plan, and implement the ecosystem for new products and new markets.

2. Board Members Basic Data

Title	Nationality	Name	Elected (Inaugurated) Date	Term	First Elected Date	Major Experience/Education Attainment	Concurrent Post at E Ink and Other Companies
Title	ROC	FrankKo, representative of Yuan Cheng Fa Technologies Corporation	June 20, 2017	3	June 18, 2014	VP, Technology and Strategic Development Office, AUO/PhD, Institute of EO Engineering, National Chiao Tung University.	Chairman or director of E Ink subsidiaries.
Chairman	ROC	Johnson Lee, representative of Yuan Cheng Fa Technologies Corporation	June 20, 2017	3	June 13, 2008	BA/BS in Economics and Electrical Engineering, Tufts University, USA.	President, E Ink Holdings Inc. and chairman or director of E Ink subsidiaries/ Chairman, Chengqi Investment Co., Ltd./ Supervisor, Netronix, Inc./ Executive Director, Shin Lung Natural Gas Co., Ltd. / Director, UltraChip Inc./ Director, Foongtone Technology Co., Ltd./ Director, BoardTek Electronics Corporation/Director, Yilong Gas Co., Ltd.
Director	ROC	S. C. Ho, representative of Yuan Cheng Fa Technologies Corporation	June 20, 2017	3	June 20, 2002	MS in Mechanical Engineering, University of Wisconsin, USA.	Chairman, SinoPac Holdings and director or supervisor of its subsidiaries/ Director, Chung Hwa Pulp Corporation/ Director, TaiGen Biotechnology Co., Ltd./ Director, SHEN's Art Printing Co., Ltd./ Director of E Ink subsidiaries 1.
Director	ROC	Felix Ho, representative of Yuan Cheng Fa Technologies Corporation June 20, 2017	June 20, 2017	3	June 20, 2002	MA in Financial Management, MIT Sloan School of Management	Chairman of E Ink subsidiaries/ Director, Chung Hwa Pulp Corporation/ Chairman of YFY Consumer Product Group/ Chairman of YFY Containerboard and Packaging Group/ Director, SinoPac Holdings/ Director or supervisor of YFY subsidiaries 1.
Director	ROC	Chuang-Chuang Tsai, representative of SinoPac Holdings	June 20, 2017	3	June 13, 2008	Professor, Department of Photonics and Institute of Display, National Chiao Tung University/Senior VP, Quanta Display Inc./PhD, University of Chicago	President, E Ink Holdings Inc. and chairman or director of E Ink subsidiaries/ Chairman, Chengqi Investment Co., Ltd./ Supervisor, Netronix, Inc./ Executive Director, Shin Lung Natural Gas Co., Ltd. / Director, UltraChip Inc./ Director, Foongtone Technology Co., Ltd./ Director, BoardTek Electronics Corporation/Director, Yilong Gas Co., Ltd.

Title	Nationality	Name	Elected (Inaugurated) Date	Term	First Elected Date	Major Experience/Education Attainment	Concurrent Post at E Ink and Other Companies
Director	ROC	Feng-yuan Gan, representative of SinoPac Holdings	June 20, 2017	3	June 20, 2017	PhD in Electrical Engineering, McGill University, Canada	Executive VP, Business Center, E Ink Holdings Inc.
Independent Director	ROC	Tien-Chung Chen	June 20, 2017	3	June 16, 2005	President, Advantech America/Director or supervisor of Advantech Co., Ltd. /MBA, University of USA	Independent director, SinoPac Holdings
Independent Director	ROC	Chao-Tung Wen	June 20, 2017	3	June 18, 2014	PhD in Urban and Environmental Management, Rensselaer Polytechnic Institute, USA./ Professor and Chairman, NCCU Graduate Institute of Technology, Innovation, and Intellectual Property Management/Director of EMBA, NCCU, and Dean, Center for Creativity and Innovation Studies, NCCU.	Independent Director, PharmaDax Inc./ Independent Director, Tatung System Technologies Inc.

1. Please refer to E Ink Annual Report 2018 for details of concurrent posts.

2. One independent director will be re-elected on June 18, 2019.

3. Operation of the Board of Directors, Audit Committee, and Compensation Committee

Board of Director

We uphold the spirit of governance and practice governance, insist on operation and information transparency, and care about shareholder interest. Therefore, we have established our Articles of Incorporation, governance framework, and code of practice in accordance with the Company Act, Securities and Exchange Act, the best practice principles for TWSE/TPEX listed companies, the law and regulation interpretations and rules of competent authorities such as the Financial Supervisory Commission, Taiwan Stock Exchange, and Taipei Stock Exchange. The board of directors has also established the rule of procedures for board meetings to define the duties and operation of the board meetings. The board of directors holds a board meeting at least once a quarter. Major duties include establishing organizational strategies and policies, resolving major business affairs, and selecting, supervising, and instructing the management. Board members are elected by the general meeting of shareholders and the board is formed by professionals in different fields. Each board member has rich experience in related industries and higher education attainment in related fields, such as technology, business, finance, accounting, and corporate operations. After the re-election of directors in the 2017 annual general meeting of shareholders, the board currently has 8 seats, including 2 independent directors and 1 female director, with an average age of 56.75. The term of all current directors is three years, from Tuesday, June 20, 2017 to Friday, June 19, 2020.

Audit Committee

To optimize the audit and supervision functions and strengthen management adequacy, the Audit Committee assists the board of directors in implementing its supervision duty and exercising the authority specified in the Securities and Exchange Act, Company Act, and other laws and regulations. The Audit Committee communicates and exchanges with certified public accountants (CPAs) periodically and audits the selection, independence, and performance of CPAs. At the same time, internal auditors periodically submit summary audit reports to the Audit Committee based on the annual audit program. Audit Committee members also periodically assess the company's internal control system and internal auditors and their work.

The Audit Committee is formed by 2 independent directors who comply with the expertise, independence, work experience, and the number of companies where they are also independent directors concurrently as specified in the "Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies."

A lot of paper was used in past board meetings. We began to use the e-Note to contain meeting documents in 2018. Apart from promoting paperless operations to reduce resource wastage from paper and ink for printing, we hope to promote our own products. Apart from protecting confidential documents, the e-Note enables users to make remarks in the documents and search for previous records to enhance discussion efficiency.

The Audit Committee is operated to achieve the following supervisory goals:

- The fair presentation of the company's financial statements.
- Selection (dismissal), independence, and performance CPAs.
- The effective implementation of the company's internal control.
- The company's performance in legal compliance.
- The company's control over existing or potential risks.

Compensation Committee

The Compensation Committee is established to make a reasonable, impartial, and competitive compensation strategy according to the external competition environment of the industry, pay on the benchmark market, and operational performance by external professionals. This is done in order to strengthen management strategies, operational performance, and the internal audit system of the company, and co-supervise the reasonable remuneration for directors and higher level managers. In doing so, we hope to attract, retain, and encourage outstanding talents and thereby enhance the company's overall competitiveness.

Avoidance of Conflicts of Interest for Directors

We have included provisions regarding the avoidance of conflicts of interest in both the Rules of Procedure for the BOD Meeting and the Articles of Organization of the Audit Committee. When a director or the corporation he/she represents has a conflict of interest with a proposal discussed at a board meeting, and such a conflict of interest may harm the company's interest, this director must not participate in the discussion or voting of the proposal and vote for other directors.

The statistics on the avoidance of conflicts of interest at the 2018 board meetings are shown below (please refer to the 2018 Annual Report for details):

- Board Meetings: There were 3 of avoidance of conflicts of interest involving 4 proposals in the 5 board meetings held in 2018.
- Audit Committee: No avoidance of conflicts of interest was reported in committee meetings held in 2018.



		Board of Director	Audit Committee	Compensation Committee
Number of Meetings in 2018		5	4	3

Title	Name	Board of Director Actual Attendance Rate (%)	Audit Committee ¹ Actual Attendance Rate (%)	Compensation Committee ¹ Actual Attendance Rate (%)
Director	Aidatek Electronics Inc. Representative: Frank Ko	100%	-	-
Director	Aidatek Electronics Inc. Representative: Johnson Lee	100%	-	-
Director	Aidatek Electronics Inc. Representative: S. C. Ho	80%	-	-
Director	Aidatek Electronics Inc. Representative: Felix Ho	100%	-	-
Director	SinoPac Holdings Representative: Chuang-Chuang Tsai	100%	-	-
Director	SinoPac Holdings Representative: Feng-yuan Gan	100%	-	-
Independent Director	Tien-Chung Chen	80%	100%	100%
Independent Director	Bing-Seng Wu ²	100%	100%	100%
Independent Director	Chao-Tung Wen	100%	100%	100%
Committee Members	Bo-Yong Zhu	-	-	NA

1. The Audit and Remuneration Committee is formed by all independent directors. Bo-Yong Zhu was appointed as a committee member on November 12, 2018 (see details in the Annual Report 2018).

2. Independent Director Bing-Seng Wu resigned from the board on August 15, 2018 and the Audit and Remuneration Committee on September 21, 2018.

4. Further Education of Directors

Date	Organizer	Course	Length	Name	Title
3/23/2018	Taiwan Corporate Governance Association	Policies and Measures for Anti-tax Avoidance in the World and Across the Strait and Their Countermeasures.	3.0	Frank Ko	Representative of institutional director
12/11/2018		Strategies for Business and News Crisis Management	3.0		
9/12/2018	Securities and Futures Institute	Development of Anti-tax Avoidance in the World and Taiwan and Positive Response of Enterprises	3.0	Johnson Lee	Representative of institutional director
9/12/2018		New Corporate Governance Map and Investigation of Mechanisms for Strengthening Governance	3.0		

Date	Organizer	Course	Length	Name	Title
10/29/2018	Taiwan Corporate Governance Association	Anti-Tax Avoidance Analysis	3.0	S. C. Ho	Representative of institutional director
10/29/2018		Key of Latest Amendments of the Corporate Act and Practice	3.0		
10/29/2018	Taiwan Corporate Governance Association	Anti-Tax Avoidance Analysis	3.0	Felix Ho	Representative of institutional director
10/29/2018		Key of Latest Amendments of the Corporate Act and Practice	3.0		
3/5/2018	Taipei Exchange	Total e-Voting & Corporate Value Enhancement Forum	6.0	Feng-yuan Gan	Representative of institutional director
5/15/2018	Chinese National Association of Industry and Commerce	Enterprise Innovation, IT, and Competitive Strengths Directors and Supervisors Need To Know	3.0	Chuang-Chuang Tsai	Representative of institutional director
12/11/2018	Taiwan Corporate Governance Association	Strategies for Business and News Crisis Management	3.0		
3/2/2018	Taiwan Corporate Governance Association	Key to Corporate Leadership in Rapid-Changing Technologies for Directors	3.0	Tien-Chung Chen	Independent Director
10/29/2018		Anti-Tax Avoidance Analysis	3.0		
10/29/2018		Way to Response to Legal Reforms: Key of Latest Amendments of the Corporate Act and Practice	3.0		
3/9/2018	Securities and Futures Institute	Money Laundering Control Act and Legal Compliance	3.0	Chao-Tung Wen	Independent Director
5/15/2018	Chinese National Association of Industry and Commerce	Enterprise Innovation, IT, and Competitive Strengths Directors and Supervisors Need To Know	3.0		

Business Ethics and Integrity

Ethics and integrity are the core values of E Ink. Upholding ethical business practices, we remind ourselves of the importance of integrity, honesty, fairness, accuracy, and transparency while carrying out our promises and practices. Based on the framework of organizational codes and regulations, we establish relevant policies or guidelines in respect of legal compliance in different areas, including business ethics, sexual harassment prevention, financial statement production, internal control, insider trading, intellectual property management, and personal information protection. We believe that these defined policies and guidelines can help enhance operational efficiency and effectiveness, maintain regulatory consistency, and improve business ethics.

Code of Business Conduct

To maintain E Ink's core values, bribery, corruption, or violations of organizational regulations in any form are strictly prohibited. To create a transparent operating atmosphere and sound work order, we have established the "Code of Business Conduct Standard Operating Procedure" which also applies to subsidiaries and affiliates and allows employees to understand related requirements, in order to enable consistency in legal compliance between E Ink and its subsidiaries and affiliates.

Code of Business Conduct

- 01 Act of fraud, corruption and bribery, personal dignity injury by extortion, and act that affects company's market presence resulting in social criticism.
- 02 Act of circulating rumors and gossips and sophisticating facts to injure the company's market presence; act of harming the fame for a specific member of staff or the harmonious organizational atmosphere.
- 03 Act of offering and/or accepting bribes or malfeasance to seek undue or improper benefits through extortion (including accepting kickbacks or other undue or improper benefits from suppliers of customers).
- 04 Act of improperly handling the illegal acts of employees.
- 05 Act of violating the laws and regulations in relation to fair trade.

In support of a culture featuring transparent and ethical practices, we have established various reporting channels for employees and outsiders to report corruption by email (AOOT@eink.com), by letter, or over our website. After receiving a report, the Audit Office will conduct an investigation to verify the incident. If the reported unethical business practice is confirmed, we will take serious actions to handle the incident in order to eliminate corruption. At the board meeting, we communicate and discuss policies and issues in relation to anti-corruption. In 2018, one director (13% of all board members) completed the further education relating to anti-corruption. In addition, apart from arranging education and training activities for employees, we request them to strictly comply with the code of conduct. In Taiwan, all newcomers are requested to receive education and training relating to anti-corruption, including the introduction and advocating of the code of business conduct and whistleblowing regulations. By doing so, we aim to enable all employees to understand our operational management policy and reach a consensus. In 2018, we organized 10 sessions of orientation training/education for newcomers, and 112 newcomers completed related training. In addition, no corruption was reported in 2018.

Non-disclosure of Material Information

As a global leading brand of EPD technology, E Ink must maintain the value and keep absolute confidentiality of material information, in order to maintain corporate competitiveness. Therefore, we continued to verify and optimize the effectiveness of key technology and information, and technology inheritance and management in 2018, in order to provide optimal preservation for the best interest of the company, shareholders, employees, customers, and suppliers. Currently, the following approaches are applied to ensure the appropriate and effective protection of confidential information.

Access Management	Awareness Education and Training	Awareness Education and Training
Control and monitor personnel and vehicle access to the company and prevent the possibility of carrying confidential information out of the company with personal devices.	<p>Arrange periodic awareness education activities on confidential information protection and internal audits.</p> <p>Arrange training/education activities and management courses on security for suppliers and help them follow our security management system.</p> <p>Signing non-disclosure agreement with important suppliers.</p>	Take appropriate and stringent actions against violation of classified information protection.

In addition, we have established codes for processing internal material information and communicate this message to all employees, managers, and directors to prevent insider trading due to violations of the Procedure for Handling Material Inside Information.

Anti-Competitive Behavior

As the global leader of ePaper technology, we are committed to complying with antitrust-related regulations across the world. Currently, we have begun planning and promoting our antitrust compliance policy and have arranged relevant education and education activities both regularly and irregularly to educate higher level managers and general employees on the basic code of conduct at work. Through education and training, we hope that employees can understand the concept of antitrust for them to comply with and further understand the relevant laws in order to prevent any alleged violation of law.

Compliance

We insist on ethical business practices in governance, therefore, legal compliance is our basic principle and spirit. In legal compliance, each E Ink unit carries out its duty according to the laws and regulations of the local competent authorities and internalizes them in the company's code of business practice and routine operations as guidelines for all business activities.

In addition, the internal audit unit conducts internal audits every year according to the relevant laws and regulations and the company's internal operating standards and promptly revises the scope and items of the audits to prevent illegal activities and thereby ensure E Ink's sustainable operations. After detecting any illegal activities, we will honestly disclose their cause(s) according to the regulatory requirements and codes of the competent authorities without hiding.

Punishment of E Ink and staff, major defects, and improvements in 2018: One in each of the Taiwan Plant and the Yangzhou Plant.

Date	Reason	Improvements
April 16, 2018	On March 8, 2018, we were invited to a teleconference. As it was determined to be an investor conference by the competent authority, we did not need to report it according to the related procedures. As there was a mistake, we were fined NTD50,000 according to the "Taipei Exchange Rules Governing Information Reporting by Companies with TPEX Listed Securities".	We have completed the report and paid the fine.
May 22, 2018	The Yangzhou City Security Supervisory Branch of Jiangsu Province, China, conducted an unannounced information security audit of the Yangzhou Plant. It issued a ticket with a fine of CNY25,500 on the audited defects.	Revised the "Emergency Response Handling SOP" according to the rectification requirements by adding the emergency response plan for the power vehicle injury and pressure container accident. The revised SOP has been published and implemented.

Transparency of Information Disclosures

At E Ink, we process and disclose material information in accordance with the relevant laws, orders, and the regulations specified by the Taipei Stock Exchange. We have also established the spokesperson system to disclose material information through the spokesperson or deputy spokesperson, except as otherwise specified by the law or regulation.

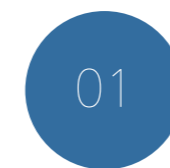
Apart from periodically reporting information regarding disclosures by the law, we hold an investor conference every quarter and a general meeting of shareholders every year. We further post the meeting data, handbook of meetings, minutes of meetings, annual reports, and financial statements on the Market Observation Post System (MOPS) (<http://mops.twse.com.tw>) for public access.

In product information disclosure, we participate in major shows at home and abroad every year to raise the visibility of E Ink products and technologies. We also organize product presentations and issue related press releases from time to time. Please visit our corporate website for details. Enquiries or suggestions are welcome. Please send them to us via our investor relations email at ir@eink.com on the Investor Relations webpage. We will reply to your enquiries or suggestions sincerely.

Corporate Governance Evaluation

To strengthen corporate governance in Taiwan, the FSC has included corporate governance evaluation as a key evaluation item in recent years, and corporate governance is also the goal we have been pursuing over the years. By establishing the Rules of Procedures for Board Meetings and the independent director post, we have implemented decent board meeting operations. We also have established the Audit Committee which holds committee meetings periodically. The committee also invites CPAs and internal audit officers to the meeting to practically implement the committee's supervision functions in order to achieve corporate governance.

A total of 1,554 public companies participated in the 5th Corporate Governance Evaluation which evaluated those companies with six types of indicators. We were ranked the top 6-20% among all evaluated companies. This result is amazing. In addition, we will continue to assess the feasibility of future improvements for the defects and implement such improvements to strive for better results and raise the company's overall market presence. Priority of improvements:



Add the data of specific contacts and windows in the Investor Relations section of the corporate website.



Add the "governance officer" post to the organization.



Strengthen the channels and methods for communication between the company and the board.

2-4 Strategy focus and growth

Business Strategy and Performance

1. Operating Strategy

Due to the uncertainties from the US-China trade tension and global financial market fluctuation, the macro economy in 2018 turned from stable to unstable. As a result, our growth was lower than that it was expected, with consolidated revenue amounting to NTD14.2 billion and gross profit to NT\$5.9 billion. Although the 2018 revenue is lower than that of 2017, the gross profit margin remains unchanged. In 2018, the gross profit margin was 41.7%, net income was NTD2.61 billion, and EPS was NTD2.32.

ePaper sales fell short of the expected growth mainly because the eReader business was beyond the expectation. Although the e-Note maintained positive development in the smart education, e-learning, and writing pad markets, as the actual demand growth was slow, the expected significant growth of the e-Note was unrealized.

Fortunately, ESL has gradually caught the attention of retailers for its new retail market application. In addition to the steady growth in the European and US markets, it rose rapidly in the China market and has been implemented by

2019 Business Foci

According to the IoT Devices Market Tracker of IHS Markit, a global research institute, there will be a total of 229 IoT devices by 2030, suggesting that there are huge and growing potential business opportunities for the development of IoT and smart city applications with the drive of policies and high-tech enterprises across the world. IoT is developed based on the interconnection of applications. Low power consumption, wireless network connection, wireless power transfer, and outdoor viewable device functions are the key requirements of IoT devices for building smart cities. Therefore, we will make full use of the ultra-low power consumption and clear view in the outdoor characteristics of ePaper to build the ePaper ecosystem in collaboration with the supply chain and application customers to promote ePaper as the best IoT device in smart cities.

In 2019, we will continue to develop the CE and IoT business. The eReader's market development has become gradually steady, and large-screen eReaders will be the next development target. We will develop related business in the emerging markets. With the rise of the eye-protection learning environment worldwide, we will combine e-Note's e-learning readiness and backlight-free eye protection advantage with government policies and resources in different places to capture the huge business opportunity in the education application market. In the IoT business, the steady growth of smart retail maintains the market drive. Apart from the ESL, we will promote the retail market application of signage and the warehouse and

large supermarket chains. In the signage business, thanks to the rise of the smart city worldwide, we keep developing new applications for smart transportation with ecosystem partners, and have established demo smart bus stops using the signage as info panels in major cities in Europe, the USA, and Japan, and in Shanghai and Taipei. The results are formidable.

In new technologies, the Advanced Color ePaper (ACeP) has become more mature and complete. The optimization of its cost structure is in progress toward mass production, and the application in commercial signage is on the way. In 2018, we won the Excellence in Technology Award at the 2018 Gold Panel Award for the true-color ACeP.

In addition, we have been promoting sustainable development in the economic, environmental, and social aspects. In 2018, we won three awards at the same time at the 11th Taiwan Corporate Sustainability Awards (TCSA): "Top 50 Corporate Sustainability Award", "Corporate Sustainability Report Award", and "Best Performance in Specific Categories—Social Inclusion Award". These awards recognize our efforts and achievements to "extend our contributions to social and environmental sustainability with the product's core value" in CSR practice.

logistics applications of ePaper. In addition, through the long-term cultivation, demo smart bus stops using ePaper on the info panel are deploying steadily.

In technology development, in view of the high demand for battery-free networking solutions in the retail and logistics scenarios, we will continue to invest resources in the R&D of the energy harvesting technology in relation to ePaper to support the development of more applications. In addition, by optimizing R&D technology and production, the yield rate of flexible ePaper is increasing.

In operational management, we will continue to optimize overall SCM and cost control to enhance production efficiency, meet the customer's capacity demand, and provide customer with more satisfactory delivery service with automation.

Future Outlook

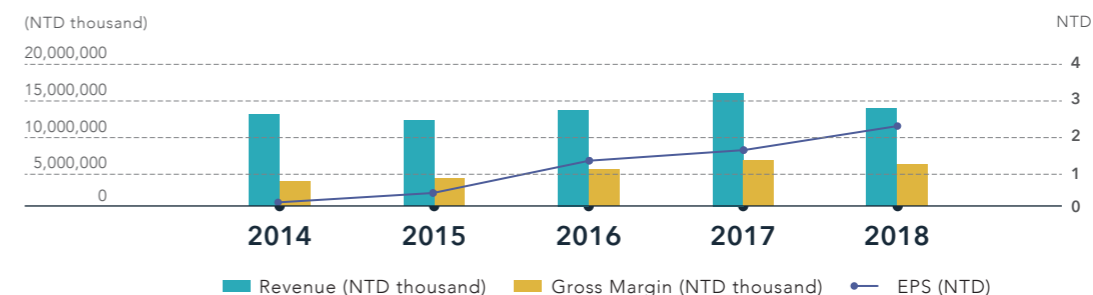
With the strength "ePaper—The Best Display for Reading, Writing and IoT", we will continue to optimize ePaper technology and manufacture to support our ePaper leadership and cultivate various smart ePaper applications in collaboration with ecosystem partners, in order to promote steady growth and sustainable development toward a benchmark enterprise to facilitate the realization of a sustainable and smart "paperless" beautiful future.

2. Consolidated financial performance in 2018

The table below shows the consolidated financial performance of E Ink and subsidiaries. In 2018, the total equity of E Ink amounted to NTD28,314,444,000. The revenue and gross margin reduced in 2018 mainly because of the unachieved growth target of the ePaper business and the unachieved expectation of the eReader business. However, compared to 2017, the e-Note maintained positive development in the smart education, e-learning, and writing pad market. The EPS increased mainly due to the recognition of the loss from the discontinued operation and exchange loss of 2017 and the adoption of the exchange gain of 2018.

Unit: NT\$1,000 (except for EPS which are expressed in NT\$1)

Item \ Year	2014	2015	2016	2017	2018
Operating Profit	13,498,720	13,306,503	14,006,206	15,203,334	14,208,661
Gross Margin	3,049,866	4,148,730	5,120,546	6,284,416	5,930,176
EPS	0.01	0.47	1.69	1.85	2.32



Type	Item	Amount ¹
		Unit: NT\$1,000 (except for Cash Dividend Per Share which are expressed in NT\$1)
Economic Value Produced	Operating Profit	14,208,661
	Net Income (Loss)	457,165
	Other Income and Gain	3,111,109
	Other Expense and Loss	309,006
Economic Value Allotted	Operating Expense	13,751,496
	Cash Dividend Per Share ¹	2.1
	Shareholder's Cash Dividend and Bonus	2,373,438
	Income Taxes	567,192
	Employee Wages and Benefits	3,702,376
	Social Expense	1,429
Economic Value Retained	Retained Earnings	6,721,050
	Net Income	2,613,673

¹ The Cash Dividend Per Share was approved by the board meeting on March 20, 2019 and will be released after the AGM's approval on June 18, 2019.

² Financial data are extracted from the 2018 Consolidated Financial Statement of E Ink Holdings Inc. and Affiliates and audited and verified by Deloitte Taiwan after auditing.

In 2018 we applied for a tax credit amounting to NTD336,644,304 in Taiwan based on the Regulations Governing Application for Tax Credits for Corporate Research and Development Expenditures and for a government subsidiary totaling CNY1,484,724 in Yangzhou, China.

Item	Subsidy Amount (CNY)
2018 Subsidy for Regular Jobs in Enterprises from the Labor Employment Service Center	156,024
Yangzhou City Reward for Domestic Patent Licensing	2,000
Reward for Technological Outcomes Transformation	500,000
Reward for Smart Workshop	500,000
Reward for Steady Growth of Foreign Investors	270,300
Jiangsu Province Subsidy for Advanced Technicians	56,400
Total	1,484,724

Tax Risk Management and Commitment

As a world-leading manufacturer and supplier of ePaper-related products, we have subsidiaries in Taiwan, the USA, Japan, mainland China, and South Korea. In response to the international trends of tax governance and fulfill our corporate citizen obligations, we proactively keep track on the tax regulation changes and potential tax risks across the world. Distribution of subsidiaries: Taiwan, the USA, Japan, mainland China, and South Korea. Types of tax: Business income tax, indirect taxes, and other taxes.

Major risks	Tax commitment
<ul style="list-style-type: none"> · Tax disputes due to ambiguities in tax regulations. · Increase in the compliance cost due to OECD's legislation progress inconsistencies for anti-tax avoidance (ATA). · Changes in tax laws and tax rewards measures and their effects on tax planning · Effects on tax affairs of the US-China trade war and inability of participation in major FTA zones. 	<ul style="list-style-type: none"> · Legal compliance (tax), accurate tax calculation, and timely tax payment. · Keeping tract on government reward for innovation and tax policies for re-investments. · Handling tax-related affairs based on ethics and integrity. · Compliance with the arm's length principle (ALP) in transactions among subsidiaries and the internationally accepted transfer pricing principles announced by the OECD. · No avoidance of tax or aggressive tax planning through the tax haven. · Maintaining virtuous communications and relations with the competent authority of tax. · Disclosure of related tax information in the financial statements, annual report, and annual general meeting of shareholders according to the "Regulations Governing the Preparation of Financial Reports by Securities Issuers" and related laws and regulations.

Memberships of Associations

We are one of the initiators of the Taiwan TFT LCD Association (TTLA) and have been a director and supervisor of the association to make positive contributions to the development of Taiwan's panel industry. The TTLA is composed of an HSE committee, technology committee, materials committee, and equipment committee, and we have been making active involvement in all committees. In addition, in response to the government's green power and green energy policy and promotion of renewable energy development, we subscribed renewable energy certificates (RECs) and became the executive director of the National Renewable Energy Certification Center. As a member of the Institute of Internal Auditors-Chinese Taiwan, apart from complying with the International Standards for the Professional Practice of Internal Auditing and the professional ethics, we combine governance, risk management, and internal control in the development of professional internal control and audit to ensure the maintenance of an effective control environment and enhancement of operational performance. In addition, we are also a member of The Allied Association for Science Parks, the Taiwan Display Union Association, and the Taiwan Electrical and Electronic Manufacturers' Association and attend relevant discussions and meetings.

In response to the development of IoT and smart city, we actively participate in international associations and organization to strengthen the development of ePaper technology and applications.

- We participate in the Digital Stationery Consortium (DSC) to promote e-ink and handwriting recognition technology to optimize related technologies and aggressively establish common standards to accelerate the popularization of related technologies with other DSC members, in order to offer better digital writing experience to users
- We also participate in associations including the armMBED, Digital Signage Multimedia Alliance Taiwan, Taiwan Digital Publishing Forum, and SEMI-FLEX Tech to promote the smart, paperless applications of ePaper in the daily life and business.

Furthermore, E Ink Corporation, our US subsidiary, is an SID member. To encourage the continual innovation and technology breakthroughs of the flat display panel (FDP) industry, E Ink Corporation is a standing sponsor of SID's I-Zone.



2-5 Risk Response

Operational Risk Identification Results

To effectively strengthen risk management, we have established a complete risk management organization to establish standard operating procedures and standards; equip employees with the correct concept of risk management through the internal control system and education/training; and promote and enforce various risk management items in routine operations. With the internal audit system, we periodically audit the status of the implementation of various risk management regulations to ensure the normal operation of the risk management system. The Table below shows the controls of identified and captured risks within the organization.

Operational Risk Category	Item	Risk Description	Degree of Impact	Frequency of Occurrence	Control Strategy
Financial Risk	Foreign Exchange Risk	This is because we use foreign currencies (mainly USD) in export trade.	High	Medium	1. Keep track on the exchange rate change and enhance capital utilization efficiency. 2. Offset with income and expense for the short run, and make timely hedging for new capital demand with long-term foreign currency loan or forward exchange.
	Interest Rate Rise	Long-term and short-term loans and financial derivatives.	Medium	Low	Set the acceptable criteria for interest rate risk for liabilities with floating interest rate.
	Credit Risk	Failure to capture the credit limit of customers may cause bad debt risk and affect the turnover of the company's operating capital.	Medium	Medium	Capture the credit limit of customers based on the company's credit regulations and the customer's financial and sales status.
	Group Capital Utilization Efficiency	1. Cope with the potential fraud or untimely disclosure of financial status due to the financial structure and operational status of overseas affiliates. 2. Potentially ineffective fund dispatch or utilization among group members resulting from potential foreign exchange control or taxation consideration.	Medium	Low	1. Periodically analyze the financial structure of group members and set up a warning mechanism. 2. Monitor the value of the company's financial assets in real time to strengthen capital dispatch among the group members and enhance the capital utilization efficiency.
Manufactured Risk	Supply Risk	Supply risk from concentration of supply, such as supply shortages due to the under capacity of suppliers, accidents to the plant, or natural disasters. Currently, we have established the "Business Continuity Management Regulations."	Low	Low	1. Check the stock of various raw materials every week to determine optimal stock planning. 2. Carefully assess suppliers and aggressively cultivate supply sources.
	Rapid supply-demand change	Stock cost and warehousing cost increase as a result of the rapid supply-demand change or loss of customers due to under production.	Medium	Medium	Plan and simulate various production-sales situations based on purchase order estimation to dynamically adjust the production plan.

Operational Risk Category	Item	Risk Description	Degree of Impact	Frequency of Occurrence	Control Strategy
Information System Risk	Information System Anomalies	Achieve business continuity and establish the information security management system.	Low	Low	1. Standardization of information system operating procedures. 2. Strengthen the disaster prevention, information security, monitoring, reporting mechanism, anomaly management, and redundancy. 3. Establish the hardware redundancy, data backup and offsite backup mechanisms and build the offsite disaster recovery system for important systems.
	Confidential Information Leakage	Theft, tampering, damage, loss, or leakage of trade secrets, patents, and research and development data.	Medium	Low	Strengthen the security of IT equipment firewalls, anomaly management, and reporting and detection mechanism
ESH Risk	Disaster Risk	To prevent various disasters from causing critical business interruptions, we have established the "Business Continuity Management Regulations" and the disaster response team to achieve business continuity.	Medium	Low	1. Establish standard operating procedures and arrange employee education and training periodically. 2. Update hardware protection and conduct inspections periodically.
	Environmental Stewardship	To comply with the national policy, laws, and regulations, and to achieve sustainable development of the ecology, relevant units should reduce the emission of various GHGs and promote environmental stewardship.	Medium	Medium	Update plant facilities, optimize operation and management, reduce chemical uses, control air-conditioning and lighting within the plant and of the office area.
	Environmental Stewardship	In addition, they should pay attention to the change in important policies and laws to adjust the company's internal system and business activities to ensure sustainable development of the ecology.	Low	Low	Reduce air pollutant emissions and wastewater discharge. Reinforce water saving and wastewater recovery. Control the use of recyclable materials.
	Tightening of Regulations		Low	Medium	Ensure compliance with all environmental regulations by keeping up with new regulations.

Status of Audit Mechanism Operation

We have established a dedicated audit unit-Audit Office-under the board of directors to audit the financial and sales operational and management systems of E Ink and subsidiaries.

The Audit Office is led by the group's chief auditor. Apart from implementing the annual program according to the "Regulations Governing Establishment of Internal Control Systems by Public Companies", the office conducts project audits as necessary to assess and detect potential defects in the internal control system in real time and to make recommendations for improvements. In addition, for the Yangzhou Plant, auditors should audit and supervise the entire process of large procurement projects; inventory returned finished and semi-finished products every quarter; and supervise the scrap of odd scraps to further reduce potential risks in the business process.

Apart from submitting the status audit report and audit results to the board of directors and Audit Committee periodically (quarterly), the team should produce a monthly report on audit findings to follow up and audit the improvement and upload such reports by the law.



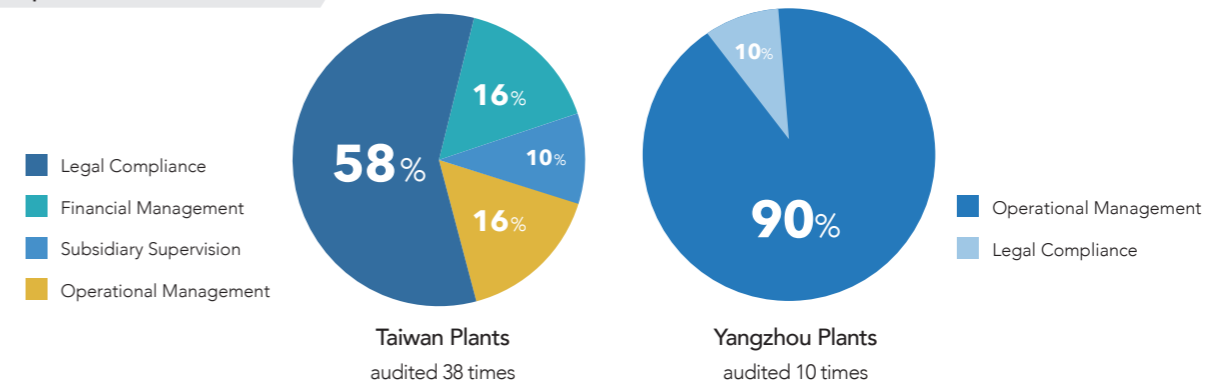
- Assist E Ink in establishing an effective internal control system.
- Turn E Ink into a global benchmark enterprise through organization optimization and business process improvement.

- Establish a risk-oriented audit system.
- Develop transnational organizational cooperation for audits within the group.
- Introduce global audit skills and tool training.
- Promote preventive control design.

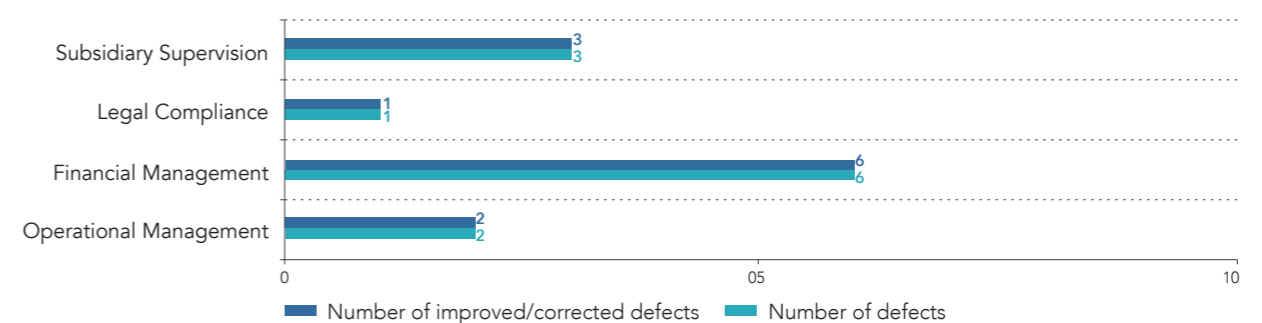


The charts below show E Ink's audit results of E Ink Taiwan plants and E Ink Yangzhou plants in 2018. All improvements have been completed.

Proportion of audit items



Audited defects and improvement completion ratio



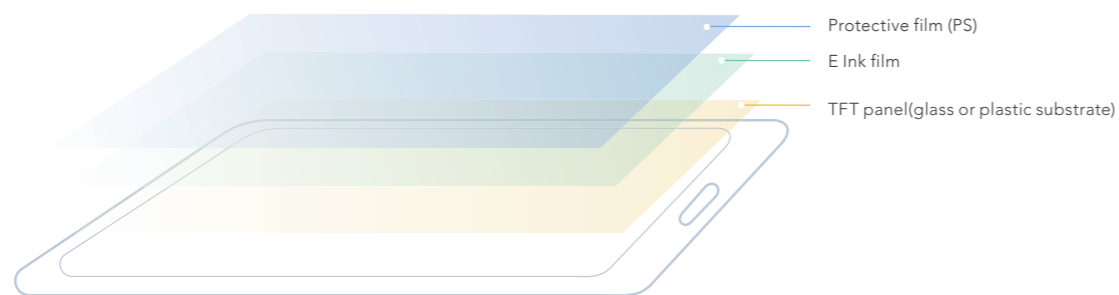
Chapter 03 Innovative Smart Experience

3-1 User-centered brand-new experience

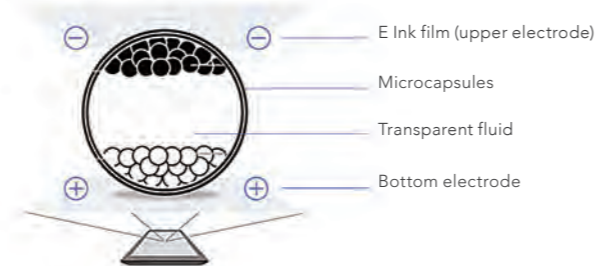
The ePaper, our core product, is characterized by native features including ultralow energy consumption, outdoor viewability, blue ray free, and easy on the eyes. All these features owe their origins to the reflexive and bi-stable design. Reflexive display uses light in the environment and external light sources to save continuous energy-consuming backlight. Apart from reducing energy consumption and being eco-friendly, there is no blue light directly emitting to the eyes. As ordinary display technologies need to increase backlight brightness significantly to ensure viewability under sunlight, they enhance energy consumption and hurt the eyes. In reflexive display, however, the stronger the external lighting is, the better the display will be. The bi-stable design drives the black and white (B/W) pigments of the ePaper to the position and holds them there with electronic field without consuming electricity. This means, "bi-state" maintains a screen without consuming electricity. In fact, the ePaper consumes very little electricity when changing screens. After a screen is stabilized, it is held there without consuming electricity. As a result, the ePaper is more energy-saving and eco-friendlier compared to ordinary displays.

ePaper: Paper-like display.

Composed of the E Ink film, thin-film transistor (TFT) panel, and protective film (PS)

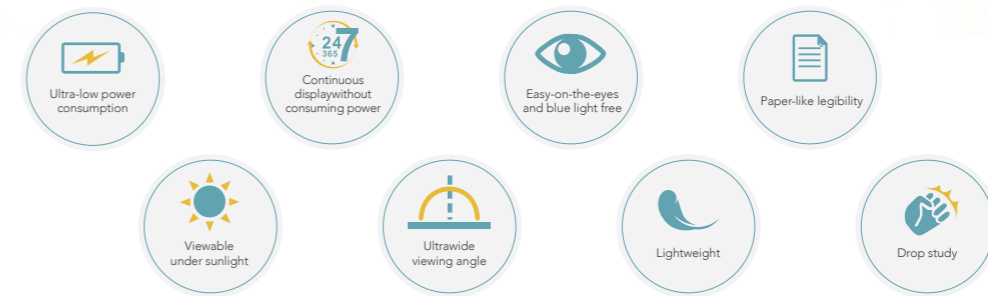


(E Ink Film) Operating Principles



ePaper characteristics and advantages

Bi-stable | Reflective | Reflective



Take the retail business for example, in the trend of online-to-offline (O2O), as online retailing changes prices very frequently, physical stores will need to update the price tag according, thus enhancing the paper label replacement rate. Take the USA for example; there are over 38,000 different types of supermarkets¹ using up to 1.28 billion paper labels. If they change the price label once a week, our electronic shelf label (ESL) can help them save nearly 66.9 billion paper labels a year. When calculating the size at about 2.9-inch each label, that quantity will be equivalent to 2.1 billion pieces of A4 paper. This means, the ESL can help save 250,000 trees a year². Take the Daan Park with 6,000+ trees for example; the ESL can save trees that can fill 41 Daan parks.

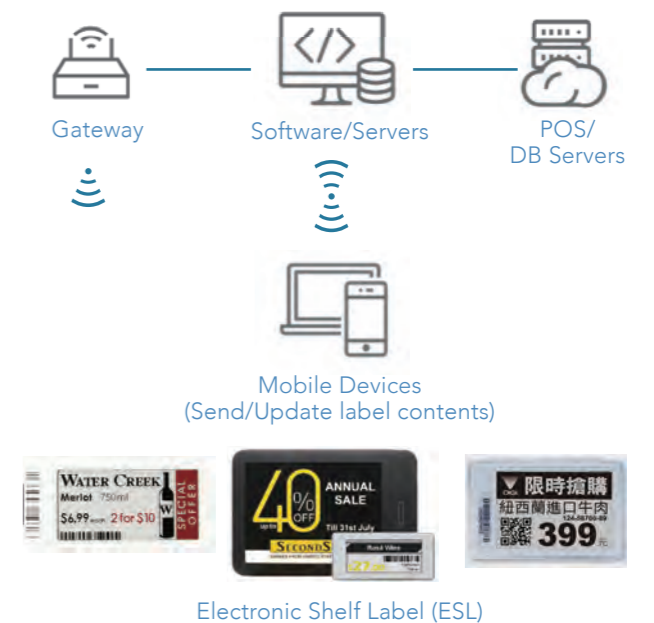
After years of R&D and optimization, with ePaper's bi-stable design characterized ultralow power consumption and power-free continuous display and reflexive display design which enables sharp viewability under sunlight/strong light, we have successfully developed niche markets for the ePaper in the retail, transportation, public display, healthcare, education, and outdoor application sectors.

ePaper in smart retail

Thanks to the proactive promotion of Alibaba Group and JD.com, Inc., a new retailing concept is thriving. In addition to Fresh Hema and Super Species, the O2O concept has been expanded to convenience store chains. Global e-commerce leader Amazon has launched Amazon 4-Star after Amazon Go. Based on the Amazon's big data, Amazon 4-Star displays 4-star or higher rated products in the shop.

These new retail business types overturning the established business models all require integration with emerging technologies to realize. For example, the time-specific and place-specific integrated or O2O-synchronized promotions, the ongoing optimization of product arrangements based on consumer data, and the real-time restocking based on the shelf and stock monitoring system need the full integration of the IT cloud, big data, AI algorithm, sensing technology, and various back-end systems.

As the ePaper is extremely eco-friendly, energy efficient, and sharply viewable under strong light, it facilitates the rise of the ESL system that supports wireless data transmission and wireless power supply. The system has even become a key factor for realizing seamless O2O integration.



ePaper's ultralow power consumption feature makes "wireless" ESL a reality

Easy installation: No need of significant modification of infrastructure.
Price synchronization: Real-time, accurate, and less errors. Remote control:
Enhances efficiency and reduces operational costs. Real-time monitoring:
Real-time restocking and waste reduction. People-specific, time-specific, and place-specific promotional information

¹ Nielsen TDLinx, 2017

² Claudia Thompson, 1992. Recycled Papers: The Essential Guide, MIT Press, Cambridge, MA

For example, concurrent and frequency promotional activities require a back-end system to centrally control all ESLs in the store to reduce operational cost and achieve high-frequency, concurrent, and accurate updating of prices and other information. When combining the shelf management system with sensing technology to detect restock demand, shop owners will need the ESL to synchronize information for shopkeepers to restock concurrency, accurately, and efficiently.

ePaper in smart transportation

After years of ESL integration, we have gradually achieved top-down integration to build an ESL ecosystem and created fruitful results with worldwide ecosystem partners. In Europe and the USA, we have successfully promoted the ESL system developed in collaboration with ecosystem partners to store chains including Best Buy, Carrefour, COOP, Whole Foods, and MediaMarkt. In China where the retail business is in its prime, apart from Fresh Hema and Super Species mentioned above, we have successfully introduced the ESL system to store chains such as JD.com, Taobao Choice, 7Fresh, and WUMart.

The IoT is on the rise, and smart cities are gradually formed with the efforts of governments in the world. In 2018, there will be more than 3.3 billion of IoT devices in smart cities across the world, and IoT devices smart transportation and public display account for over 50%. The IoT devices for smart cities will need to face a range of severe environmental requirements, and ultralow power consumption, wireless networking, wires power supply, and outdoor viewability will become the common key requirements.

Although traditional static signboards are viewable outdoor, they

are gradually unable to catch up with the rapid information change in modern society. In addition to time and labor consuming, it is dangerous for workers to change information on large traditional static signboards. Although multimedia screens can get much attention, energy consuming, cooling difficulty, and outdoor viewability have always been the problems awaiting solutions.

Ultralow power consumption, support for wireless support with renewable energy system such as the PV system, and outdoor viewability are the born advantages of the ePaper, allowing it to become the best display option for smart transportation and public display, such as bus stop info panels, parking meter, gas station fuel price display, etc., as it requires no significant modification of existing infrastructure, no additional cables, and no application for power supply and excavation to build smart traffic signs at a lower overall construction cost.

With these advantages, our signage products have won global acclaim in the smart transportation sector, and its application is seen in smart bus stops in the USA, Japan, Berlin, Australia, Taipei, and Shanghai.

Multiple application of ePaper in smart transportation

- Low power consumption, electricity supply independency,asy deployment
- Flicker-free, sharp view
- Ultra-slim, easy maintenance
- Realize energy conservation and carbon reduction
- Enhance total administration performance



Smart bus shelter Parking meter Parking sign Fuel price sign e-Number plate

Building the ePaper ecosystem and creating value with strategic partners

To fully exert ePaper's energy-saving and eco-friendly nature, we proactively team up with suppliers and customers and communicate with end-users in the field with customers to understand the end-user's needs. At the product design phase, we define product specifications and functions, simulate and test potential problems, integrate hardware and software in collaboration with customers to provide total solutions. At the end-user trial phase, we keep track on the actual status of use end-users to prepare for the next innovation cycle based on their feedback.

Through close cooperation with suppliers and customers, we have progressively established the ePaper ecosystem with solid results. Take the retail market for example, by teaming up with module makers, system integrators, and end-retailers, we have launched the ESL, a smart label (tag) application, with ePaper's unique advantages to successfully integrate O2O and make the ESL the key solution for omnichannel retail. Apart from a key factor for omnichannel retail and seamless O2O integration, the ESL reduces the cost and enhances the efficiency of logistic management for retailers. In addition to creating higher added

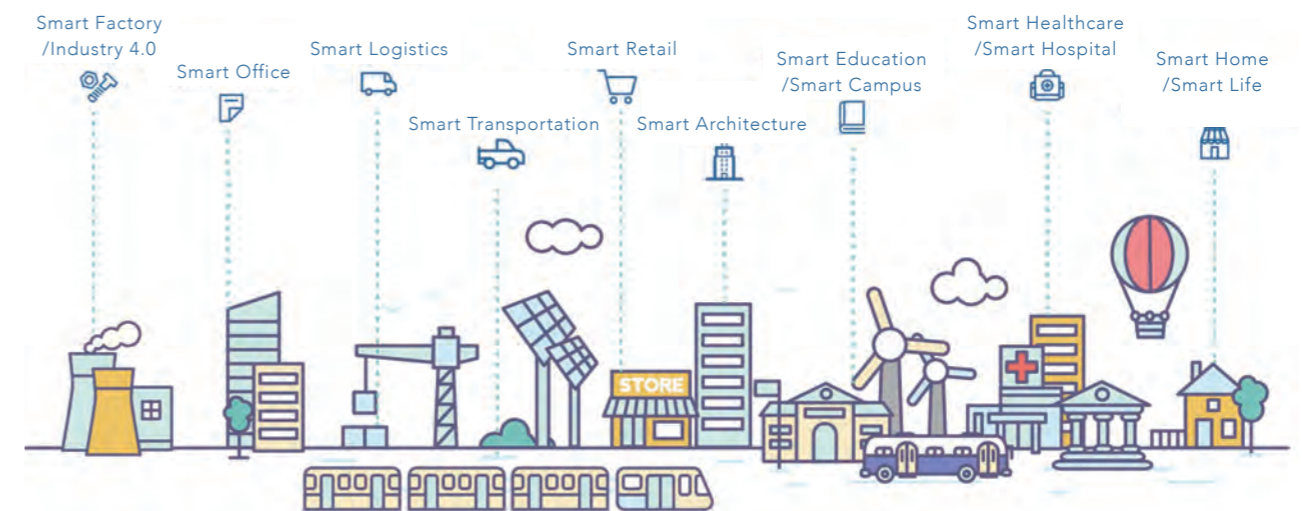
value for the retail sector, the ESL brings win-win to ecosystem partners, end-retailers, and consumers. The paper-like characteristics and ultralow power consumption advantage of the ePaper a great replacement of paper-like display interfaces to reduce logging and natural resources and save energy. In addition to the existing eReader and the said ESL, we will continue to extend and expand the scope of ePaper applications, such as the battery-free solution requiring only data transmission via NFC for information change that can be used on healthcare, transportation and logistics labels. In transportation, the ePaper has been implemented from demonstration to market application. We will further extend the application of the ESL that has been accepted by large retail chains to other retail markets and the large-size poster application. As the ePaper technology and products continue to innovate and expand, we hope to team up with hardware and software developers and the upstream and downstream supply chains of all application industries to build a complete ePaper ecosystem and resolve the problems of end-users more quickly to achieve smart application diversity and continue to develop the ePaper application in smart life and smart cities.

Field example of smart bus stop application

- Easy installation
- Green energy and eco-friendliness
- Shape diversity
- Comprehensive contents and interchangeable display (bus route numbers, emergency announcements, policy publicity, PIFs, etc.)



E Ink creates a higher value in all smart fields with strategic partners



Winning Gold Panel and SEGD Global Design Award in 2018

Part from expanding green product application based on ePaper's eco-friendly and energy-efficient characteristics, we spare no efforts to make technological breakthroughs and innovate applications. Over the years, we have won awards worldwide for our incessant efforts.

In 2018, the Advanced Color ePaper (ACeP) won the Technology Excellence Award at the Gold Panel Awards 2018 after its commercial operation. The ACeP is the first ePaper to deliver true-color display with color pigments in place of color filter arrays, marking a new milestone in the reflexive color electronic paper display (EPD).



In the application innovation of existing products, we have combined ePaper's ultralow power consumption advantage to building design to complete the large memorial public art called DAZZLE with the San Diego International Airport and Ueberall International, a world-leading experiential designer. DAZZLE is patched on the exterior wall of the new car rental center at the San Diego International Airport with over 2,000 independent solar power bricks and the E Ink



DAZZLE video

Prism™ programmable color ePaper. With the programmable color display of the E Ink Prism™, designers can make various dynamic image art on the building façade.

As a successful example of the application of E Ink Prism™ in large public art, DAZZLE proves the E Ink Prism's unique value in building design for designers to design eco-friendly, durable, and fascinating artworks to change the building and its appearance. For this reason, we also won the 2018 FLEXI Awards – Product Innovation award.



Demonstration of the innovative applications of ePaper in various smart fields at important shows in 2018.

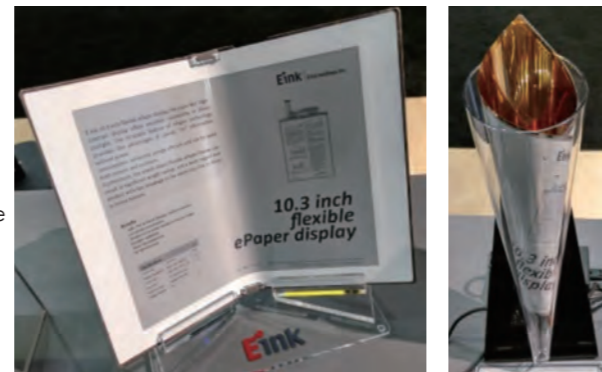


SID 2018 (Society for Information Display)

At the annual SID symposium, apart from displaying the ACeP, we showcased a range of flexible technologies.



E Ink@SID 2018 video

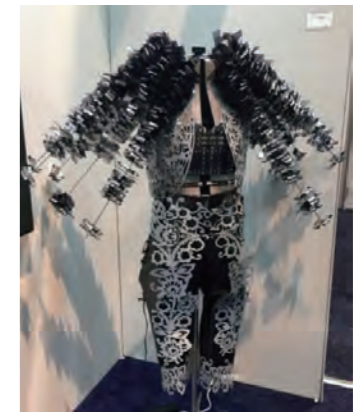
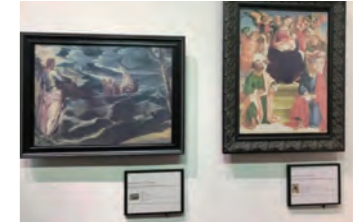


ES 2018 (Consumer Electronics Show)

At the CES 2018 in Las Vegas, the USA, we displayed ePaper's innovative applications in consumer electronics, architecture, healthcare, retail, and fashion design in January. In addition to the latest ePaper applications in wearables, eReader, and the e-Note, other ePaper applications included: the DAZZLE façade, color-changing ePaper dress, ACeP, resettable ESL, smart transdermal patch, the latest eReader, and the e-Note with writing experience resembling traditional paper.



E Ink@CES 2018 video



MWC Shanghai 2018 (Mobile World Congress Shanghai 2018)

As hardware and software integration is the foundation for realizing IoT, tens of millions of low-energy-consumption smart terminal devices will be built in different scenario, and most of these devices require a screen as the man-machine interface. Therefore, apart from displaying applications for reading, writing, wearables, smart cards, and smart labels, we combined ePaper's flexible, lightweight, slim, energy-saving, always on, and outdoor viewable features closely with popular IoT applications to present ePaper's innovative applications in new retail, smart classroom, smart transportation, and smart ward.



E Ink@MWC Shanghai 2018 video

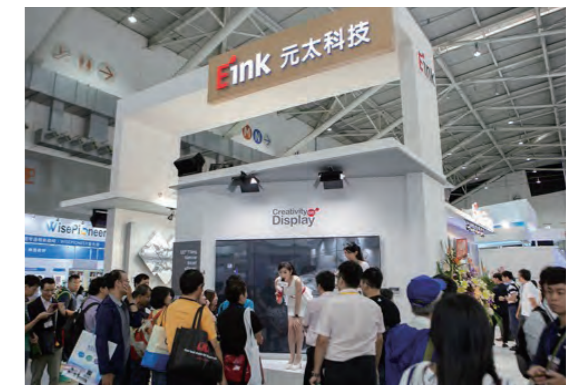


Touch Taiwan 2018

At the Touch Display 2018, besides displaying ePaper's breakthroughs in color, large size, ultralow power consumption, and flexibility, we demonstrated the ePaper's solutions for smart cities and IoT based on the theme "ePaper: Best Display Technology for Smart Cities and IoT".



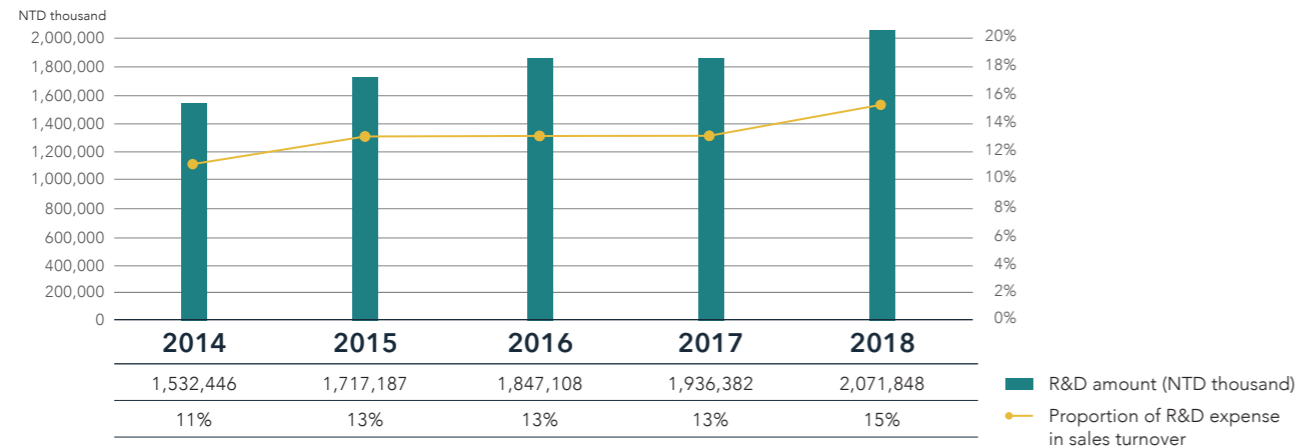
E Ink@Touch Taiwan 2018 video



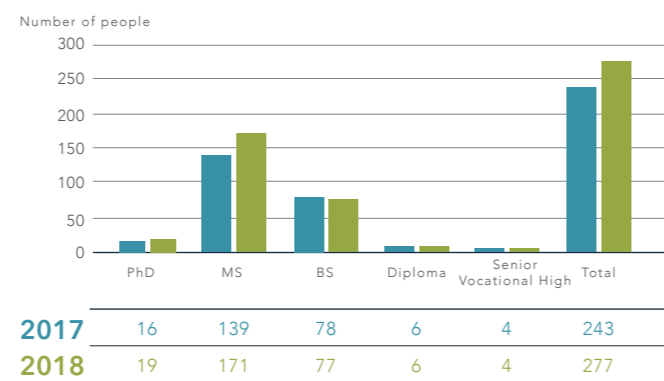
3-2 Technical and innovation capacity

Product and Technology Innovation

In 2018, we continued to research and develop ePaper-related products and technology. Apart from continuously optimizing the original black and white ePaper module, we aggressively engage in commodifying color ePaper applications by combining with ESL, flexible display, rollable display, and touch functions. Increasing new products in the ePaper field have won good market feedback. In addition, by actively expanding the capacity to fortify our leadership in the ePaper market, we managed to maintain sustainable and leading development in the highly competitive display industry. In 2018 we invested about NT\$2.072 billion in R&D, commanding 15% of the company's sales turnover. This suggests that technology innovation and product development are very important to E Ink. We understand that only incessant injection of R&D energy can achieve our goal of sustainable development. In the coming year, the total investment in related R&D projects will be 12-15% of the revenue.



In the quality of R&D personnel, in 2018 we increased 14% of R&D personnel from 243 people in 2017 to 277 personnel. We inventoried and graded personnel (L1-4) by setting level-specific rating standards for officers of different levels to objectively rate the personnel in 2018. We also planned and provided R&D personnel of different levels with appropriate learning maps and professional training programs.



In addition to investing in lots of R&D resources, we enhanced technology development with the academia through academia-industry collaboration and archived fruitful results.

Collaborative development with external units

Partner	Technology for Development	Development Outcomes
Domestic Academia Units	ePaper glass curtain	Campus demonstration at different universities
Domestic Academia Units	Feasibility assessment of the light guide screen-tone transfer process and sample demonstration	Completion of the light guide screen-tone transfer process and sample demonstration
Foreign Academic Units	Assessment of the fully printed substrate and its application in EPD	Completion of the ink-jet printed component process integration, in-circuit verification and low-volume substrate trial manufacture
Domestic R&D institution	Simulation of flexible ePaper module structure design	Completion of the stress distribution simulation of different flexible ePaper modules and the sample of foldable ePaper module
Foreign suppliers	Green energy smart bus stop	Trial production with customers and erected the 13.3" standing-type and 32" shelter-type bus stops.

We value patent deployment and acquired 144, 140, and 93 patents respectively in 2016, 2017, and 2018. The number of proposals in 2018 increased by 22%, hoping to constantly increase the quantity of patent acquisition in the future to strengthen the competitiveness of our ePaper.

Acquired Patents	2016	2017	2018
Domestic	60	49	38
Overseas	89	91	55
Total	144	140	93

Important technology and application R&D outcomes

1. E Ink technology

The e-ink is composed of millions of microcapsules or microcups, each measured equivalent to the diameter of a piece of human hair. Each microcapsule contains positively charged white pigments and negatively charged black pigments suspending in a liquid. Based on the unlike charges attraction theory, when the ink is electrified, the white or black pigments in a microcapsule will move to the top in corresponding blocks for users to see the white or black color. By coating a layer of e-ink on a plastic film and then mounting a thin film transistor (TFT) circuit, we can form pixel graphics with a driver IC to create an electronic paper display (EPD).

	Carta	Spectra	ACeP
E Ink			
Product Photo			
Color	Dual color	Tri-color	Color
Pigment Color	Black and white	Black, white, and red Black, white, and yellow	Cyan, magenta, yellow, and white.
Features	<ul style="list-style-type: none"> Highest reflection rate Quick response High contrast 	<ul style="list-style-type: none"> High contrast One more new color 	<ul style="list-style-type: none"> Resolve light attenuation without using filters Full color gamut
Major applications	Applications requiring dynamic display: <ul style="list-style-type: none"> eReader e-Note Mobile devices Electronic shelf label (ESL) Wearables Signage 	Any applications requiring eye-catching effects <ul style="list-style-type: none"> Electronic shelf label (ESL) Logistics tags Storefront advertisements Medical application 	Applications requirement color display <ul style="list-style-type: none"> Signage ESL eReader

2 Advanced Color ePaper Display

By breaking through the technology bottleneck of color ePaper, our R&D team created the ACeP with pigment in four colors (cyan, magenta, yellow, white). In the same size, the ACeP has higher resolution (dpi) and high display brightness. In addition, the color gamut of the ACeP is comparable to that of printed poster to display oil-painting-like paper effect.



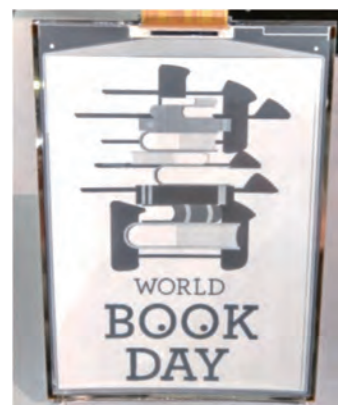
3 Flexible ePaper

The E Ink Mobius™ is the flexible EPD from E Ink. It integrates the design experience and process technology of amorphous silicon or organic transistors with flexible substrates and modules, as well as the stacking stress of plastic materials. It is a flexible, lightweight, sturdy, and portable plastic display that makes light weight and sturdiness a reality. Flexible EPDs enable customers to add conformal elements to product designs to give products a unique appearance design and functionality. Therefore, they have been widely used in the market.

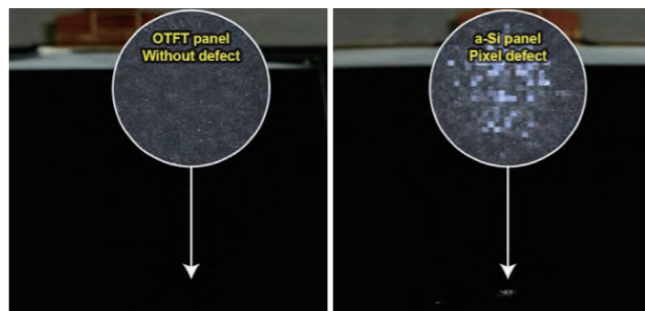
We proactively collaborate with world-leading manufacturers by supplying them the Mobius module using plastic substrates for product mass production. Their products have won immediate critical acclaim after release. In 2018, we engaged in application commodification by introducing the e-Note and the ePaper for laptop application. Apart from enhancing performance, significant breakthroughs were made in the writing speed and energy efficiency. °



To further improve the flexibility of ePaper, we engage in the R&D of organic TFT (OTFT) flexible EPD. As the high-polymer materials and metal leads on the OTFT substrate have better ductility, their mechanical stress endurance is also greater than the amorphous silicon TFT substrate to enhance the durability of the flexible E Ink Mobius™ for use in the development of different terminal products, such as foldable, rollable and wearable products.



6.8-inch flexible OTFT EPD



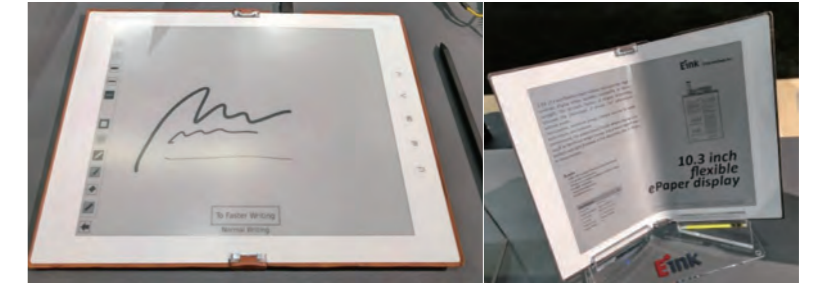
The flexible OTFT EPD maintains normal display after the drop-impact test.



Drop-impact test video

4 Foldable ePaper

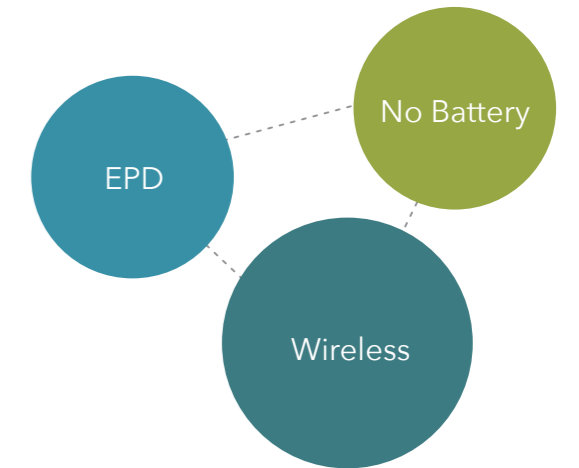
In electronic devices, the demand for portability increases. Through ePaper thinning, new material development, stress simulation, and mechanism design, we have developed the foldable ePaper technology for tablet-size EPD to be folded into smartphone-size EPD to significantly enhance the portability and convenience of EPD and achieve large-size display and portability at the same time. In addition, this foldable EPD keeps the paper-like readability and electro-magnetic resonance (EMR) writing touch for use in the eReader, e-Note, and other innovative applications to increase product value and differentiation.



10.3" paper-like readability and EMR foldable ePaper

5 Wireless power transfer EPD technology

The wireless power transfer EPD is a perfect combination of the ePaper and the wireless transfer technology. Based on EPD's ultralow power consumption feature and using the micro power generated by wireless transfer, the technology supplies power to drive the EPD to change display only on-demand to save power consumption from long-time standby. The wireless power transfer EPD technology is suitable for a range of applications. For example, it can be used to read radio frequency identification (RFID) in near field communications (NFC) and ultra-high frequency (UHF). With an NFC or UHF reader, the technology can be used in ePaper greeting cards, ePaper labels, and even ePaper identity card to achieve battery-free display on a broader range of devices.



e-ID card



e-Greeting card



e-Label (UHF)

6 Lag-free ePaper JustWrite

The JustWrite is a new writing application of the ePaper that presents natural writing effect without the need of using the TFT substrate. With a lag of near zero millisecond, the JustWrite delivers a writing effect resembling a piece of paper or a whiteboard. With simple electronic devices, users can achieve e-writing and choose to paste on different surfaces to realize e-writing in different scenarios.

As a patented ePaper technology, the JustWrite is equipped with the paper-like effect, quality contrast, and backlight-free reflexive display features as in all ePaper products. As an all-plastic display, the JustWrite is durable and lightweight, very suitable for use with white board, the e-Note, the e-Tag, and other devices emphasizing writability.



Future R&D plans and application trends

In the next five years, we will continue the current EPD R&D direction: size expansion, color display, weight reduction, touch, writability, and flexibility. In product applications, apart from continuing the development of applications and related technologies of ePaper products for the eReader, we will expand the scope of ePaper applications outside of the EPD.

Direction of technology R&D and new product applications

1. Advanced technologies, such as the ACeP, flexibility, low power consumption, and process capacity enhancement will be the R&D direction. We will also invest in R&D resources and continue to make patent deployment to maintain technology leadership.
2. We will continue to promote new application markets, such as e-Tag, e-Note, IoT devices, smart cards, dual screen phones, and digital signage and cultivate the ePaper ecosystem to develop and build more complete and more valuable products and applications in collaboration with upstream and downstream suppliers of the industry.
3. We will also develop edgy display technologies and introduce new applications to the market through international collaboration to play a decisive role in the supply chain of the industry through the development and improvement of advanced technologies.
4. By teaming up with upstream and downstream suppliers, we aim to develop and build better and more competitive products and systems.

3-3 Quality insistence

" Through Continual Innovation and Improvement to Provide High Quality Products and Services to Meet Customer Needs. "

Quality Policy

Our Hsinchu Plant has been certified by quality-related systems or customer audits including ISO 9001, SONY GP, and Amazon. By establishing respective quality management systems and operating these systems through the PDCA cycle, we assure product quality and fulfillment of customer requirements.

In 2018, we initiated the document approval scenario diversion project to review the suitability of the document evaluation and process and enhance countersigning efficiency. As a result, we reduced countersigning from 145 times to 48 times, with a reduction rate of up to 67%.

After establishing quality policies and objectives with regard to the framework of these QMSes, we implemented them throughout the organization for all employees to understand and follow the relevant regulations in order to provide customers with quality products and services.

Product Environmental Quality Policy

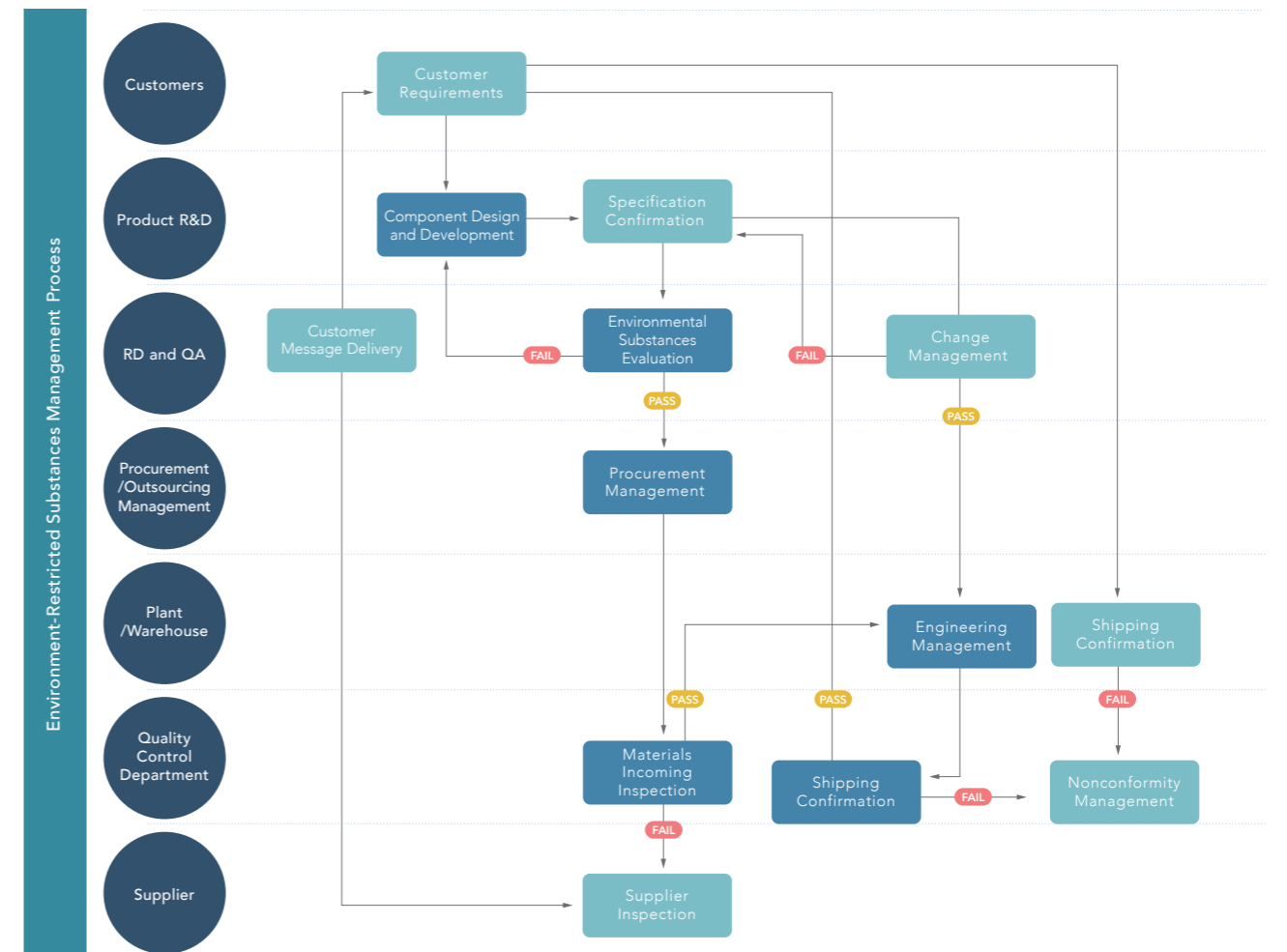
- 01 To optimize and promote the product environmental quality assurance organization and earnestly maintain and improve product environmental quality.
- 02 To abide by environment-related laws, regulations, protocols, and customer requirements and implement total quality management on materials, parts and secondary materials used on products from product design, material procurement, product manufacture, and shipping to ensure products contain no environment-related substances to be controlled in products as requested by customers.
- 03 To comply with the customer's product environmental quality requirements by establishing a product environmental assurance system for all processes, covering product design, procurement, material warehouse management, manufacture, and finished product warehouse management.
- 04 To add the operating quality assurance system to the product environmental quality management system and establish countermeasures as the scope of implementation of quality assurance.
- 05 To verify the product environmental quality system through internal audits in order to make continual improvement of the management system.
- 06 To improve the employee's awareness and support of product environmental quality and support activities for product environmental quality assurance.



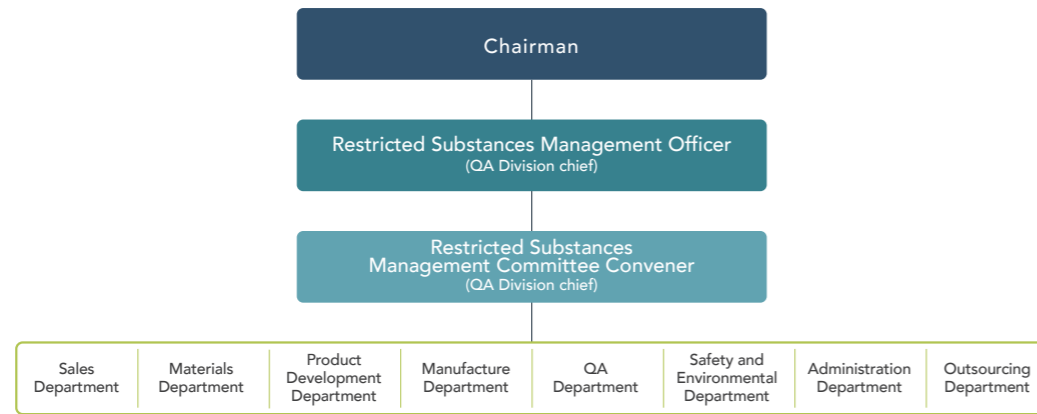
▲ ISO 9001 Statement
(from left to right: E Ink Holdings and Transcend Optronics)

Management of Restricted Substances

To ensure the parts, raw materials, packing materials, and components we use on products do not contain environment-related substances to be restricted in products; to comply with the current laws and codes; to meet customer requirements; to protect the Earth and the environment, and to reduce the impact on ecosystems, we request suppliers to supply materials that comply with our environmental and quality policies right at the beginning of developing new parts and components for products. We include the customer's requirements for restricted substances in the E Ink Restricted Substances after internal evaluation. Apart from complying the RoHS, REACH, halogen-free, and no conflict minerals requirements and the control standards and supplier control regulations of specific customers, suppliers are requested to submit a restricted substance list and an RBA/GeSI Conflict Minerals Report. Currently, suppliers are requested to make a declaration of non-use of conflict minerals. The response rate of materials and component suppliers is 100%. We also request suppliers to assume full responsibility for indemnification for supplying materials containing environmental control substances as specified in the restricted substances or conflict minerals. Currently, materials supplied by suppliers conform to the restricted substance requirements. In addition, products are shipped with packaging materials containing the RoHS label for identification. In 2018, no product-related nonconformity was reported.



In addition, to implement RoHS in system operation, we have established the "Environment-Restricted Substances Management Committee" under the following framework:



Apart from adding a responsible person to the Linkou Plant in 2016, the "Environment-Restricted Substances Management Committee" implemented the total green product management (GPM) within the company to ensure all components comply with the requirements. The committee also constantly verifies the GP status and requirements through meetings and documentary evaluation. After a change in or amendment to the customer or international GP specifications, we will notify all units after the internal assessment and adjustment of control standards and operating models. In addition, we integrated all plants in Taiwan and added four plasticizer requirements based on the RoHS 2.0. By cooperating with the said complete restricted substance, product quality, and environmental management systems, we are capable of supplying customers with quality green products and protecting the Earth and the environment in 2017.

Quality risk management

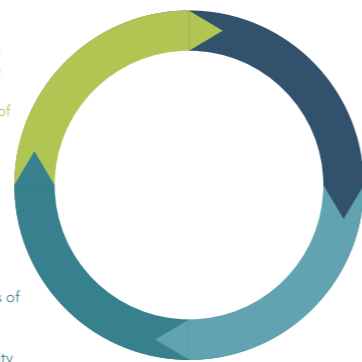
Risk management must be considered when operating ISO management systems. Through related processes for risk assessment and identification, we aim to locate high-risk items and seek solutions to reduce their impacts on business operations.

4.Action

Report of risk identification results and improvement measures in the annual management evaluation report. In 2018, the improvement of 3 high-risk items was completed.

3.Check

In the next audit, the effectiveness of risk improvement is verified and high-risk items re-identified to determine their risk level by severity and occurrence rate and propose risk improvement measures.



1.Plan

Risk assessment is performed in the internal audit of 33 ISO 9001 QMS processes.

2.Do

After identifying high-risk items, we determine their risk level by severity and occurrence rate and propose risk improvement measures.

Continuous Improvement of Production Performance

Apart from making reference to customer feedback and promoting various product quality improvement programs, we discuss quality-related problems at the customer's premises every week and hold SBR meetings with key customers every half year to discuss issues relating to business practice, design, and quality in order to maintain a good cooperation relationship with customers through close communication. We also encourage employees to make proposals in order to locate all latent factors affecting production efficiency, product quality, and workforce and resource utilization in routine operations and manufacturing processes, and draw up effective plans to pursue production optimization. In 2018, we earned customer recognition for product quality. The Hsinchu Plant and Linkou Plant in Taiwan and the Yangzhou Plant in mainland China were rated Grade A Green Partner by important customer Sony.

Sales Platform Integration and Optimization

Launched upon the One Team One E Ink thinking logic, the Sales Platform plans and integrate the sales team, including business and operational management processes. Through process standardization, continual improvement, process reengineering and integration, we progressively digitize Sales Forecast.

Effectiveness and results

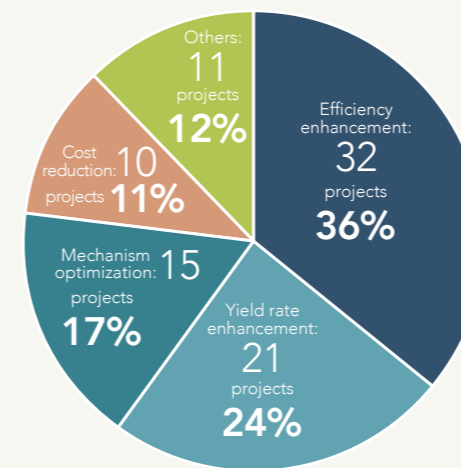
1. Externalize business management processes to define roles and responsibilities based on the business process.
2. Standardize work processes and reduce unnecessary procedures or add risk prevention to enhance the quality and efficiency of operation.
3. Smoothen processes to reduce unnecessary operating and time costs.
4. Promoting cloud operation to smoothen workflow and information flow, enhance cloud computing, reduce information interchange.
5. Build fundamental management models for effective operational management.
6. Strengthen process key point control and enhance outcome predictability and controllability to achieve the goal more easily.

The Yangzhou Plant established the Continual Improvement Plan (CIP) in October 2014 to advocate the ARCI (accountable, responsible, consulted, and informed) model to encourage employees to find problems in the production process and propose possible corrective actions, in order to develop the systematic and analytical thinking, problem-solving, and work abilities, as well as a corporate culture for voluntary problem correction. In 2017, the plant continued to promote the CIP campaign and added the quality control circle (QCC) campaign to raise the proportion of employee involvement in quality improvement. CIP and QCC proposals can be made by individual or by team, with focus on quality improvement, yield rate elevation, efficiency enhancement, management optimization, and cost reduction. After internal assessment, the plant selected and rewarded the Accountable Star and Accountable Team and implemented related proposals.

Quality Improvement Program

Continual Improvement Plan (CIP)

In 2018, a total of 89 CIPs were completed to enhance production efficiency by 24% and reduce defective rate by 90%.



Risk process identification and improvement

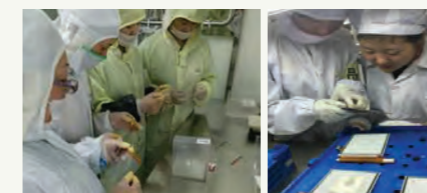
The Yangzhou Plant identified the process risks, planned improvement measures, and followed up periodically to make continual improvement of product quality. In 2018, 11 major process risks were identified, and the improvement of 9 risks was completed, others will be followed up.



List of Important Improvement Measures

Key Training of Testing Personnel

To ensure the continual improvement of yield rate control, the Yangzhou Plant implemented the key training for testing personnel in 2018 and included the training in both the written and practical examinations. Recurrent training was arranged every month to maintain the understanding and skill level of personnel.



Broken panel

After finding the causes of broken panels through the nonconformity analysis and full position arrangement survey, we added buffering cushions, adjusted operations, and checked inspection omissions to significantly reduce defective rate by 54%.



Feedback on the QCC campaign of Yangzhou Plant Employee: QA RMA Zhou Jie

The QCC campaign has enlivened team atmosphere and motivated problem-solving enthusiasm. Team members voluntarily talked about their opinions about the causes of and recommended solutions for problems. Although some recommendations could hardly resolve the problem, they did broaden the horizon of problem-solving to help find the best solution. Both QCC and CIP can help employees to learn from one another and coordinate with one another to promote teamwork for making breakthroughs. QCC will be continued to resolve problems in work and help achieve the organizational goals.



Outstanding Accountable Team

Apart from constantly improving the capacity and awareness of employees through training and education, we encourage learning from project and growth from work. Through the horizontally operated project team, we enhance interdepartmental exchange to overcome various challenges.

Paradise Project Team

The Yangzhou Plant implemented the Paradise Project in 2018 to integrate and adjust production resources within the plant. Aiming to fulfill the company's annual shipping demand, the plant adjusted 203,115 machines across 12 departments and renovated a total of 17,500m² of the factory building to enhance spatial utilization by 160%. By the end of 2018, 93% of new production lines have passed certification, demonstrating the teamwork in project planning and management and interdepartmental cooperation of the Yangzhou Plant.



Patent Declaration Team

The Yangzhou Plant has established the Patent Declaration Team and declared a total of 12 patents in 2018 to fulfill the requirements for applying for government incentives, such as technology commodification, patent reward, and innovation vouchers



Project Declaration Team

Project Declaration Team

The Yangzhou Plant established the Project Declaration Team in 2017. Through concerted efforts and by demonstrating the "One Team One E Ink" corporate culture, the team has made fruitful results in just one year, such as the Industrialization and Informatization Integration Management Demo Enterprise and the Yangzhou City Accredited Laboratory. The plant also won the Yangzhou City Foreign Trade Steady Development Project Incentive, Yangzhou City innovation vouchers, technology improvement vouchers, and patent subsidies, accumulating up to CNY1.75 million.



Smart Factory Building: Awarded the Jiangsu Province Smart Workshop

To implement ePaper smart manufacturing, the Yangzhou Plant launched the smart project to achieve "preliminary smart" through more delicate and dynamic management of all parts of production by combining industrialization equipment and informatization systems; integrating personnel, equipment and data; and implementing real-time management, coordination, and control of multiple systems based on smart technology, digital technology, and IT, in order to enhance the plant's production efficiency and management efficiency.

Smart reengineering of hardware and software is **designed and developed independently** to enhance independent innovation capacity and **core competitiveness**. These achievements were awarded the **Jiangsu Province Demo Smart Workshop**.



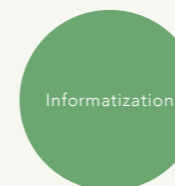
Robotic arm implementation



Automatic material handling

Industrialization and Informatization Integration Management Demo Enterprise

In recent years, the Yangzhou Plant has been implemented a range of informatization and industrialization measures proactively. In 2018, it was one of the 703 enterprises passing the Industrialization and Informatization Integration Management Demo Enterprise rating in China.



Informatization

- Achieving interconnection and intercommunication through hardware-software integration and system integration
- Image automatic recognition: Automatic collection of the lowest level of production information with the communication interface of digital equipment.
- Integration of production information, manufacturing system, and SAP system: Through in-depth integration of development data, a digital ePaper production plant is built to achieve automated and smart manufacturing.



Industrialization

- Automation of production equipment and smart manufacturing
- Implementation of lean and integrated management concepts and technical upgrading and modification of production equipment. Reduction or cancelation of manual operation and automation of equipment with the quick line design concept and lean production process.

Rewarded the Yangzhou Economic Development Zone Innovation Voucher

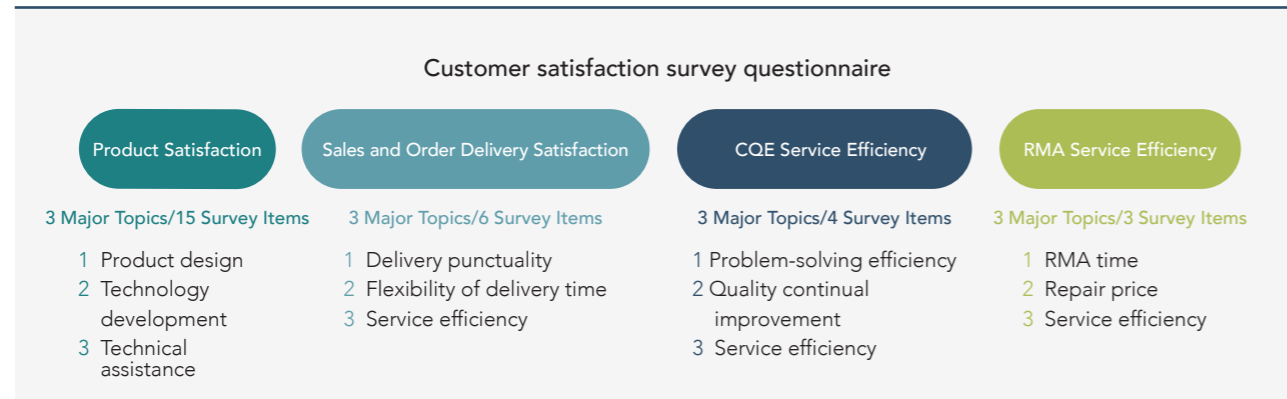
The innovation voucher is a government incentive for SMEs requiring innovation to encourage enterprise to improve innovation capacity and to accelerate R&D engagement. With the innovative ultra-small flexible ePaper production technology, the Yangzhou Plant smoothly implemented the mass production of ultra-small ePaper products in 2018 to initiate ePaper's wearable application. The Yangzhou Plant also passed the Yangzhou Economic Development Zone Innovation Voucher Evaluation. °

3-4 Customer relationship management

Customer Satisfaction

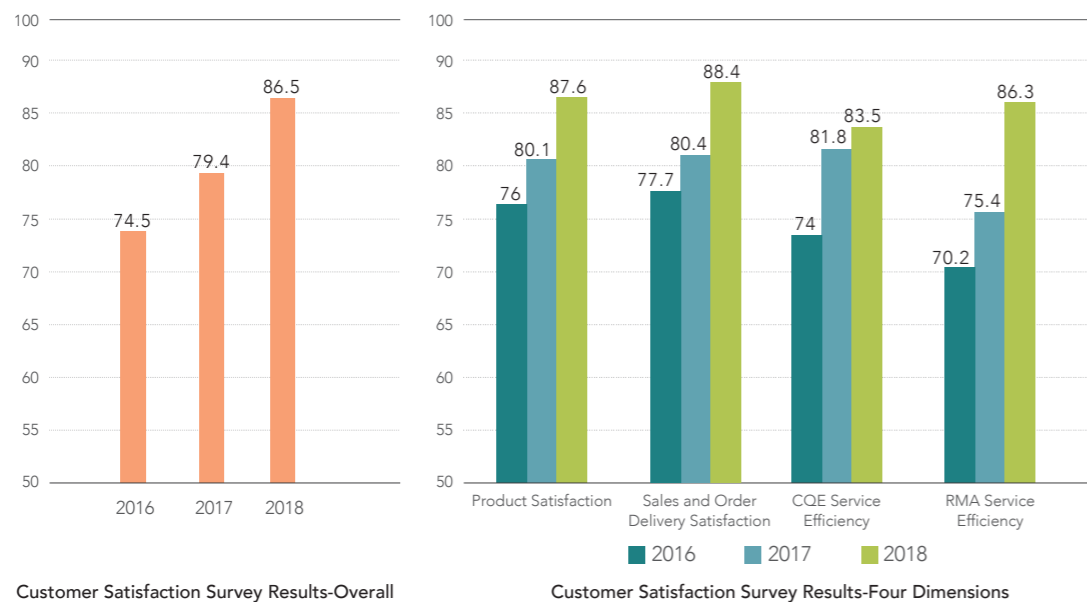
We fully understand that customer demand and satisfaction are the key to business operations. Therefore, we provide quality customer service and maintain sound customer relationships to boost sales achievements. In addition, through close and complementary interaction with customers, we aim to improve operational performance for both parties. At E Ink, we are committed to ensuring customer satisfaction with our products and services through high-quality management, process planning, continuous review, continual improvement, passage of relevant inspections and certification, and follow-up of customer satisfaction.

We have been proactively implementing customer satisfaction survey over time. Based on the sales turnover of customers of each business center, we perform a customer satisfaction survey on customers with high contributions or high developmental potential every year. The survey is conducted over the phone, by email, fax, or onsite communication with respondents with items covering four main dimensions: "product satisfaction", "sales and order delivery satisfaction", "CQE service efficiency satisfaction", and "RMA service efficiency satisfaction". We also survey customer satisfaction by product type: CE and IoT.



After receiving the response to our customer satisfaction survey form from customers, the QA Division will assess the proportion of satisfactory and unsatisfactory items. QA will also use relevant management charts as necessary to capture the centralization of satisfactory and unsatisfactory items to take countermeasures after in-depth investigation of their causes. QA also analyzes compliance with product requirements, the characteristics and trend of processes and products (including preventive actions), and suppliers; locates the main trends related to customers and their correlations; and makes decisions and long-term planning after reviewing and improving the present condition. As the valid response rate of the 2015 survey is up, and the average score of each item is excellent, these suggest that we have gained high customer satisfaction and recognition in both product quality and customer service.

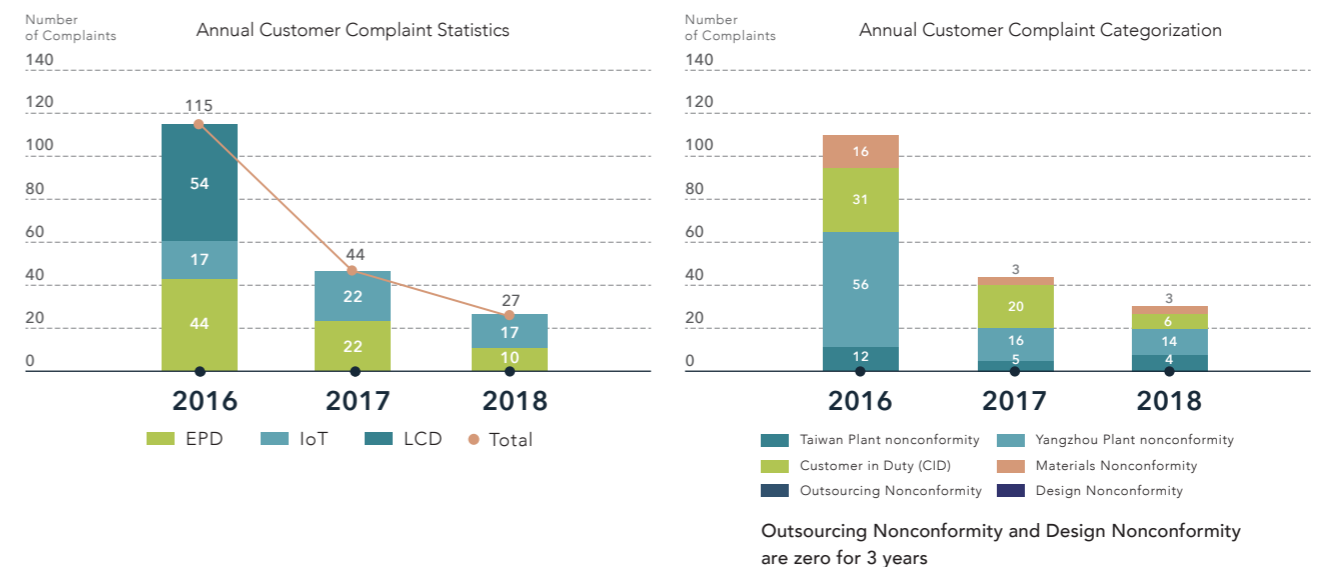
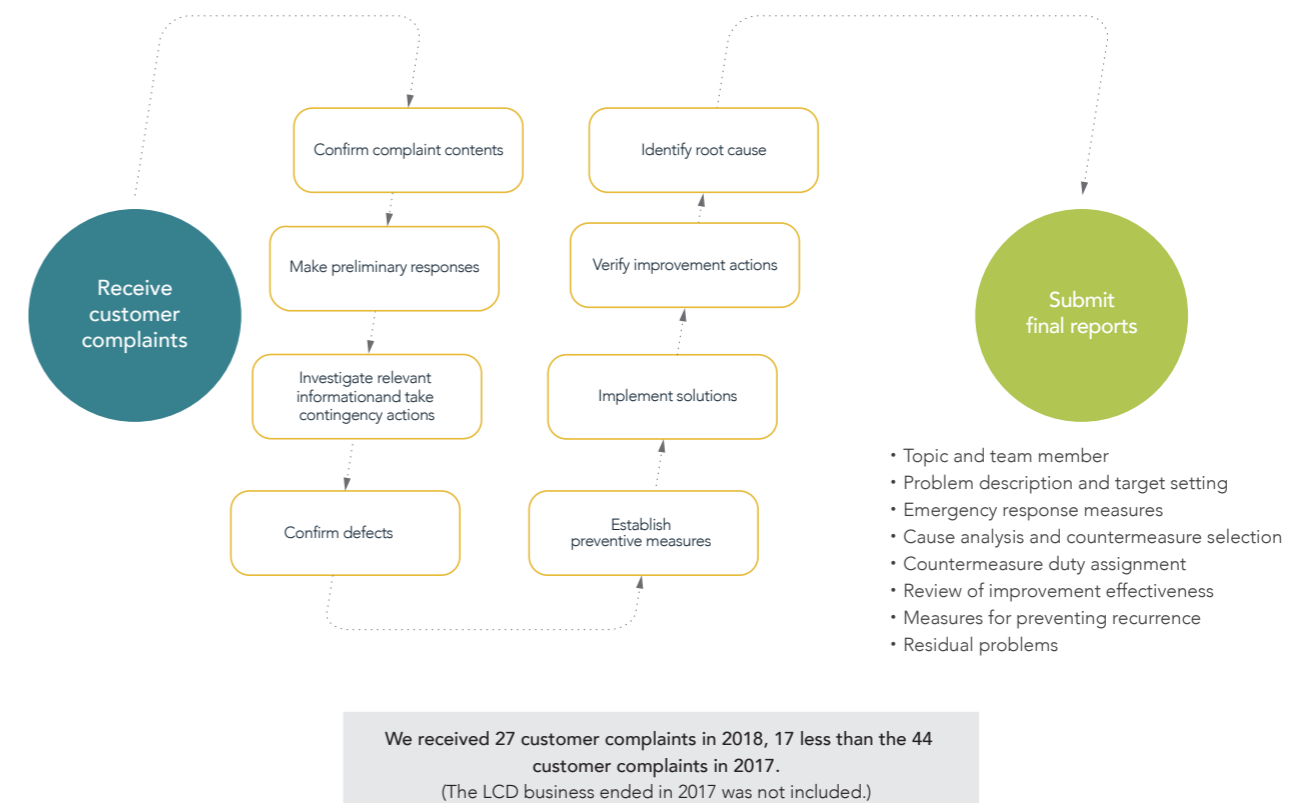
Customer satisfaction has been rising steadily over the past three years, and the 2018 results were way better than that of 2016 and 2017, and improvement is seen in each of the four dimensions, with overall performance maintained over 80%.

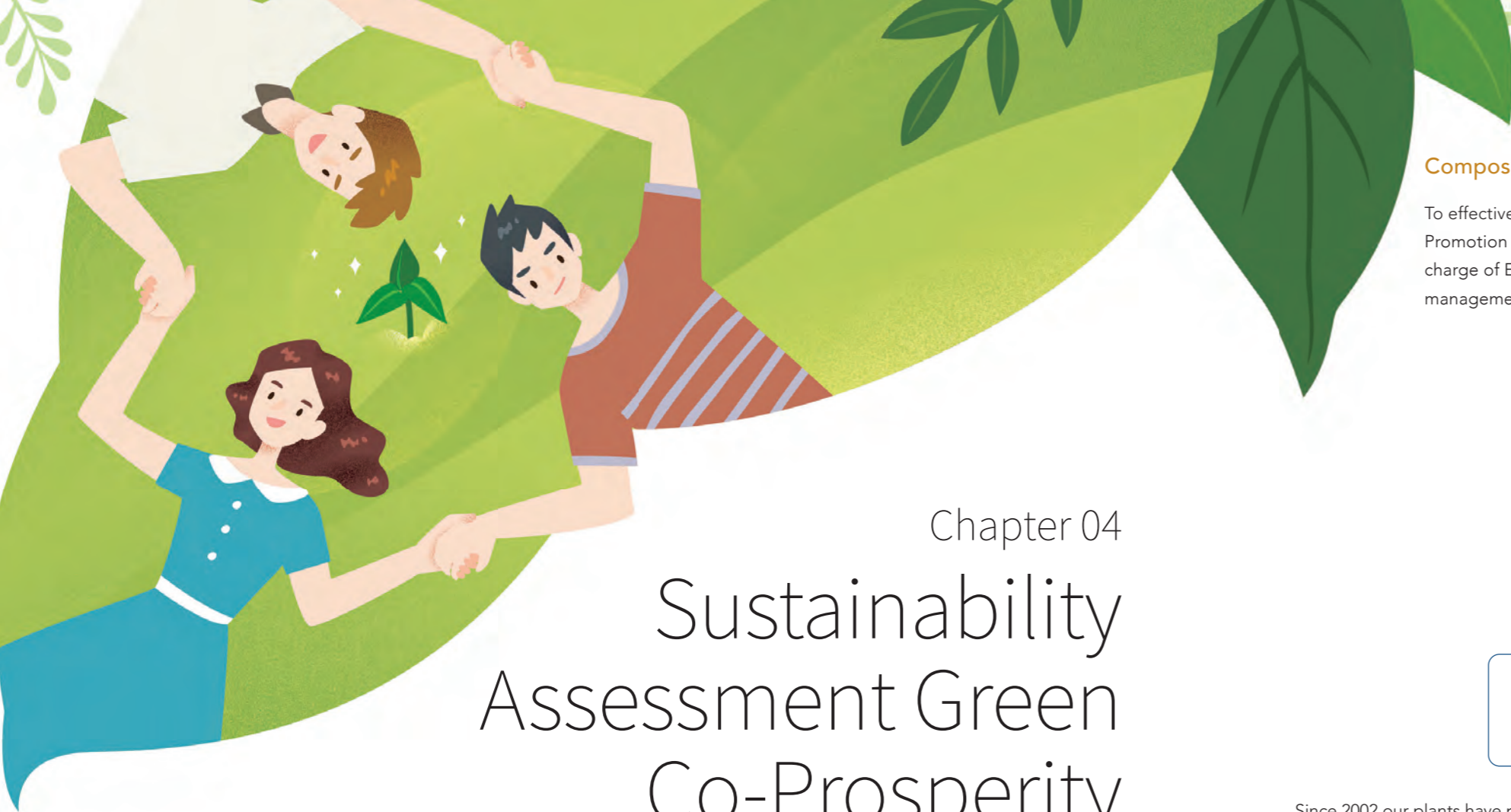


After analyzing the satisfaction survey results, we deliver the outcomes to respective units and submit them to management review. For customers with an average score in 2018 lower than that of 2017, we discussed them at the management review meeting and asked related windows, including the sales and product satisfaction, sale and order delivery satisfaction, RMA service efficiency satisfaction, and CQE service efficiency satisfaction, to assist with the investigation of the cause (s) of dissatisfaction. Risk assessment was also conducted on the potential problem(s) fed back by customers to confirm if the customer problems were properly addressed.

Response to Customer Feedback

At E Ink, customer satisfaction with our products and services is extremely important to us. Aside from surveying customer opinions with the said customer satisfaction survey, we arrange business visits on, hold business meetings with, send emails to, or make calls to customers from time to time to ask for feedback and make immediate management and responses to their feedback. Customer complaint handling flowchart.





Chapter 04 Sustainability Assessment Green Co-Prosperity

4-1 Environmental protection

ESHE Policy

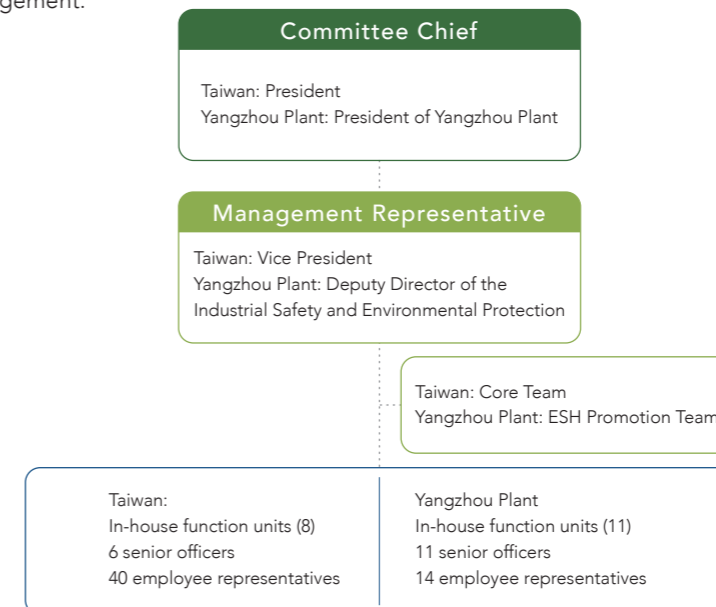
Environment Prioritization, Safety Supremacy, Total Participation, Sustainable Operations

As a leading developer and supplier of ePaper based on electrophoretic technology, we offer revolutionary products, bring better user experience, and create higher environmental efficiency through developing various advanced technologies. At E Ink, management of all levels is concerned about employee health and safety and cares about environmental protection and energy issues. We also believe that safety and health, environmental protection, and energy considerations are indispensable to business operations. By measuring health and safety, environmental protection, and energy with appropriate tools, we plan and implement management plans in routine operational control to achieve occupational safety, clean production, environmental protection, and energy conservation in order to realize sustainable development. For these reasons, we are committed to making continual improvement to:

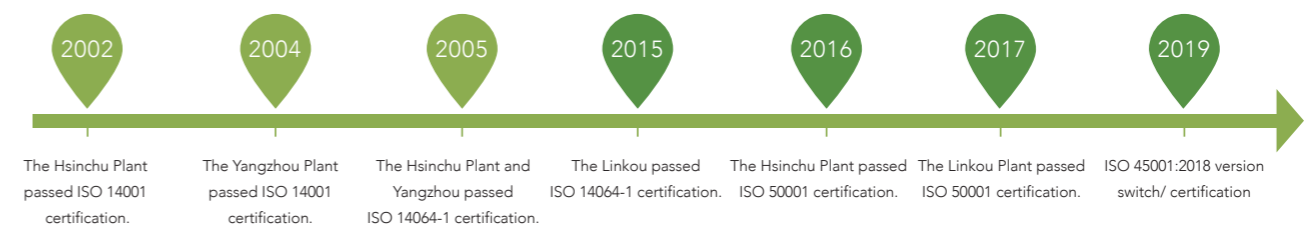
- 01 Comply with local ESHE-related laws and regulations, build a healthy and safe work environment, prevent occupational injuries and diseases, and realize corporate social responsibilities;
- 02 implement risk management, pollution control, and energy conservation by administrators of all levels and all employees and encourage total participation through communication and coordination;
- 03 provide adequate and necessary education, training, and resources and introduce new international ESHE concepts in order to improve the ESHE awareness and ESHE management performance of employees;
- 04 research and develop new processes and use new equipment, new materials that pass ESHE assessments to minimize hazards, risks, environmental impacts, and energy consumption;
- 05 manage hazardous chemical substances in compliance with international protocols and customer requirements to follow global environmental trends and enhance product competitiveness;
- 06 reinforce process waste reduction, energy savings, risk control, and hazard prevention to improve ESHE performance;
- 07 conduct GHG inventories and verifications in compliance with international standards and take effective controls to minimize GHG emissions;
- 08 uphold balanced ESHE and organizational development to achieve sustainable operations.

Composition of ESH Management System Promotion Organizations

To effectively promote and implement ESH management, we establish the ESH Management System Promotion Committee in Taiwan and the ESH Promotion Team in the Yangzhou Plant, China, to take charge of ESH promotion, ESH communication and coordination among departments, and ESH management.



Since 2002 our plants have passed ISO 14001 certification (environmental management system, EMS) one after another. Further in 2017, our plants in Taiwan passed the third-party external verification and acquired the new certificate with reference to the version change to ISO 14001:2015.



Since 2005, the Hsinchu Plant and the Yangzhou Plant acquire the annual certificate of assurance for GHG inventory and external verification based on ISO 14064-1. Although the Linkou Plant is not a compulsory GHG inventory reporting business of the Environmental Protection Administration, it has voluntarily conduct GHG inventory and internal verification to review the effectiveness of in-house energy conservation and emissions reduction for the reference of continual improvement.



E Ink ISO 14001 Certificate

Transcend Optronics
ISO 14001 Certificate

ISO 14064-1 Verification
Opinion Statements of E Ink
and Transcend Optronics

4-2 Address to climate change

Energy Consumption Management

In view of global warming and the structure adjustment of domestic power supply, energy management, energy conservation, and emissions reduction have become popular topics in society and the key issues of enterprises. In addition to pursuing sustainable business, we spare no effort to practice environmental protection, in order to create a better future for the Earth, the environment, and future generations.

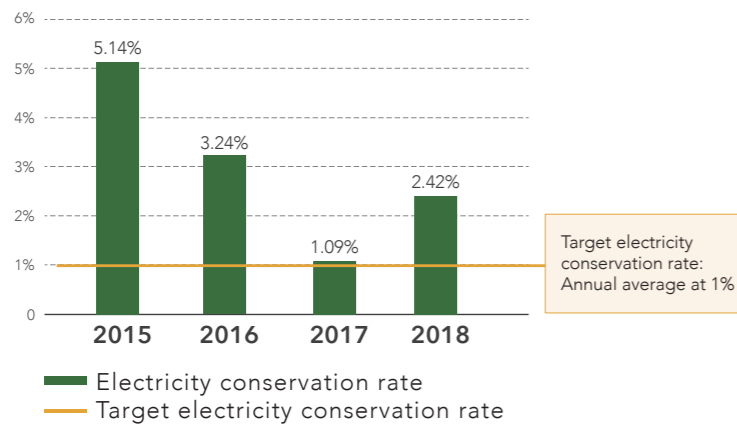
In 2016 the Hsinchu Plant passed the third-party external verification for the ISO 50001 Energy Management System (EnMS). We further extended the implementation experience of the Hsinchu Plant to the Linkou Plant, which also passed third-party external verification at the end of 2017. We will progressively implement EnMS to all E Ink plants to demonstrate our determination and efforts to implement energy conservation and emissions reduction. In 2018 we implemented the EnMS version switch and will pass ISO 50001:2018 in 2019.

At E Ink, we implement midstream-downstream vertical integration for integrated production. Previously, the Hsinchu Plant manufactured the front-end display panel, the Linkou Plant and the USA Plant produced the E Ink, and the Yangzhou Plant assembled the terminal module products. As a result, the energy management and the intensity of product energy consumption varied significantly as the energy supply method in different regions and product structure differed. Currently in Taiwan, plants in Taiwan cooperate with the government's energy policy. The annual average energy conservation rate during 2015-2019 of the Hsinchu Plant is set at 1%, and the target unit product energy consumption of the Linkou Plant is

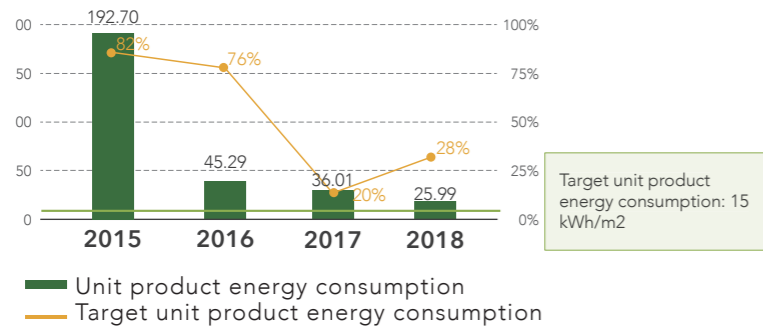


ISO 50001 Certificate

Electricity conservation rate of Hsinchu Plant (%)



Unit product energy consumption of Linkou Plant (kWh/m²)

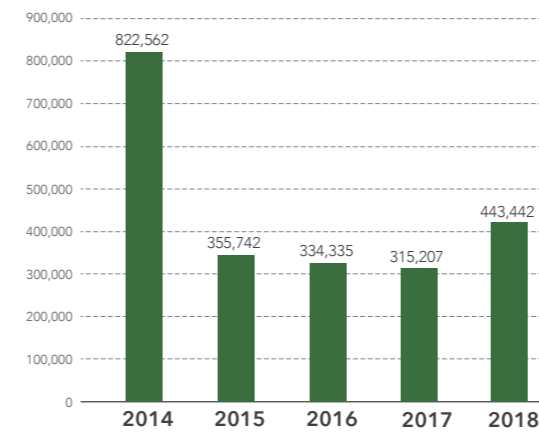


set at 15 kWh/m².

After transforming the Hsinchu Plant from a mass production plant into an experiment plant, we have progressively adjusted the energy conservation of its facilities and production equipment and implemented the in-house energy conservation program. As a result, the annual energy conservation rate of the Hsinchu Plant is over 1%. As the transformation of the Hsinchu Plant was completed in 2017, its product energy consumption and GHG emission intensity will be disregarded from the report.

Although capacity expansion of the Linkou Plant has been under progress in recent years, steady electricity consumption has been maintained. Therefore, the unit product energy consumption of the plant has been reducing significantly every year. In addition, the shipping volume of the Linkou Plant reduced since 2013 after the plant began to engage in new product development and trial production. Although shipping volume increased in 2014, most part was for trial production, and mass production did not begin until 2016. Therefore, the intensity of energy consumption of the Linkou Plant was comparatively high in 2013 and 2014 as product outputs were extremely low. Mass production of the Linkou Plant began in 2017, and so were part of the energy conservation measures. Although total electricity consumption increased, product energy consumption and GHG emission intensity reduced significantly. Although

Unit product energy consumption of Yangzhou Plant (GJ/m²)

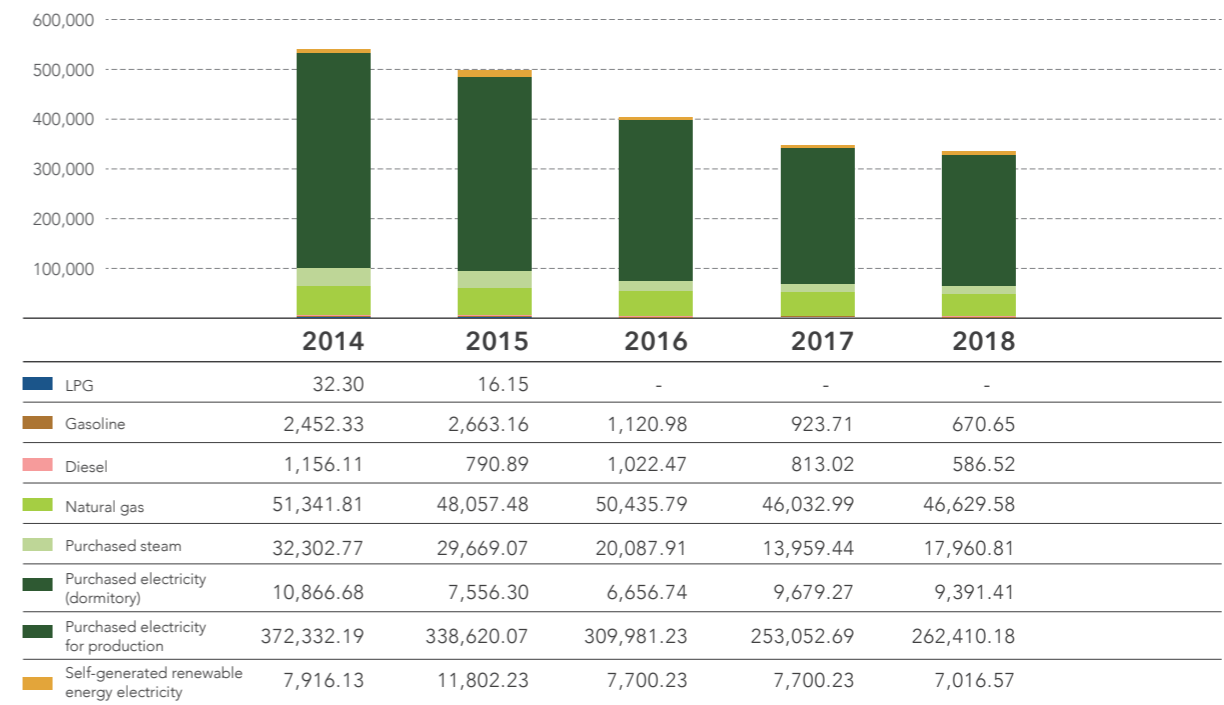


capacity continued to increase in 2018, as the increase in total electricity consumption was insignificant, both product unit energy consumption and GHG emission intensity reduced continuously, suggesting that the energy management measures were effective. While various energy management plans have been initiated in the Yangzhou Plant since 2015 in pace with productivity rise, the intensity of energy consumption reduced significantly than 2014, and reduction continues every year ever since. However, electricity consumption increased slightly in 2018 after the capacity transfer for plant relocation, and capacity reduced as utilization was lowered. As a result, both product unit energy consumption and GHG emission intensity increased slightly.

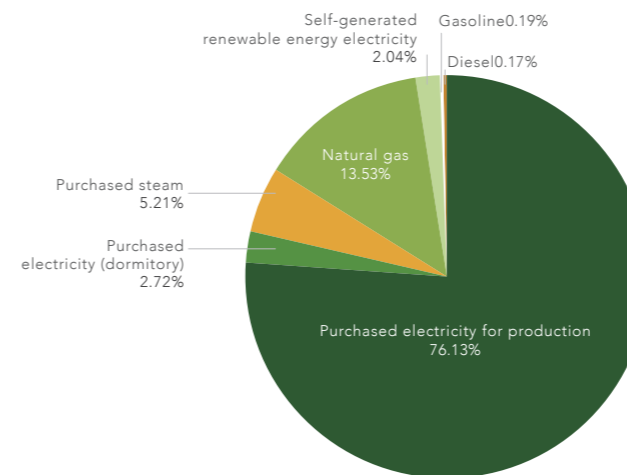
Status of energy consumption

The total energy consumption of leading production bases worldwide in 2018 was 344,666 (GJ), with electricity (purchased or self-generated renewable energy) as the major form of energy, accounting for over 78% of the total energy consumed.

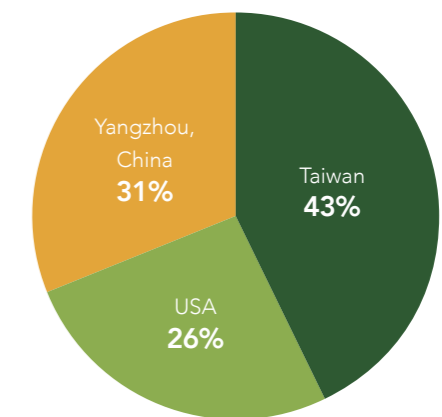
Total Energy Consumption in 2014-2018 (GJ)



Total Energy Consumption in 2014-2018 (GJ)



Proportion of 2018 total energy consumption of major E Ink production bases worldwide



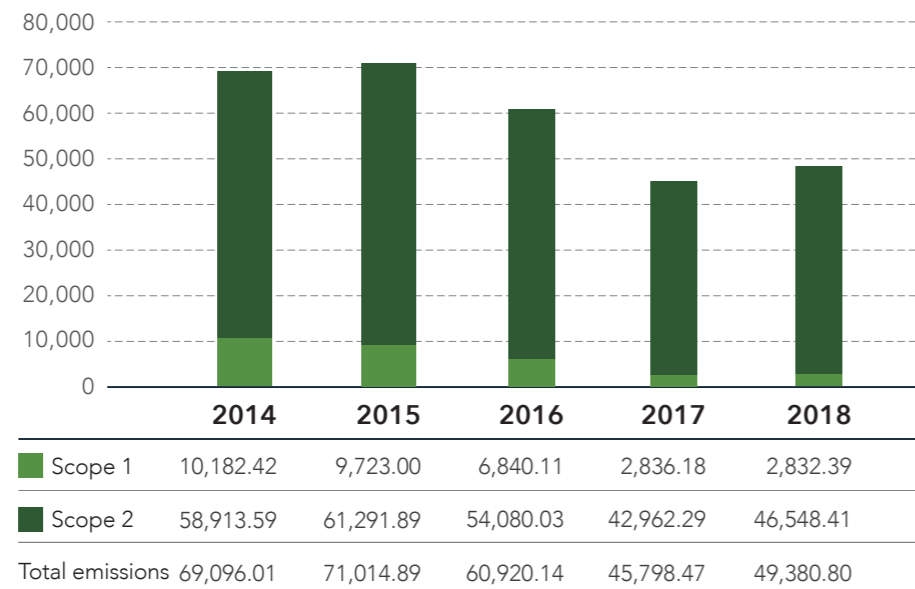
GHG Emissions

Reduction of GHG emissions has become an important trend of environmental protection around the globe. To implement GHG management, it is necessary to first understand the company's GHG emissions. Identification and quantification of GHG emissions are the most fundamental work for GHG inventory.

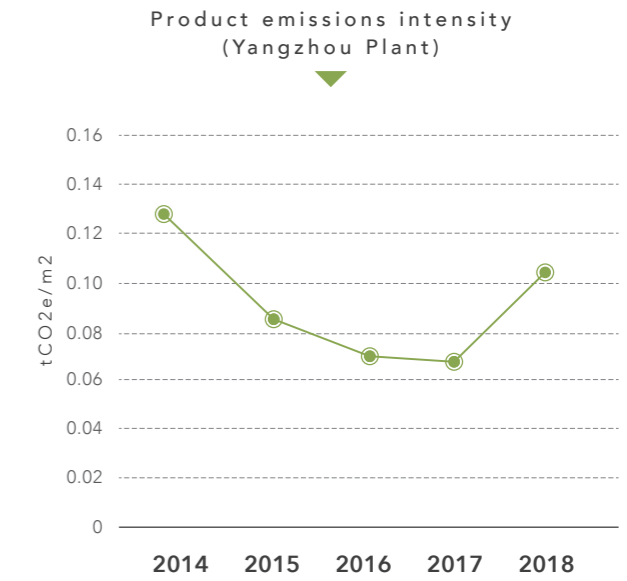
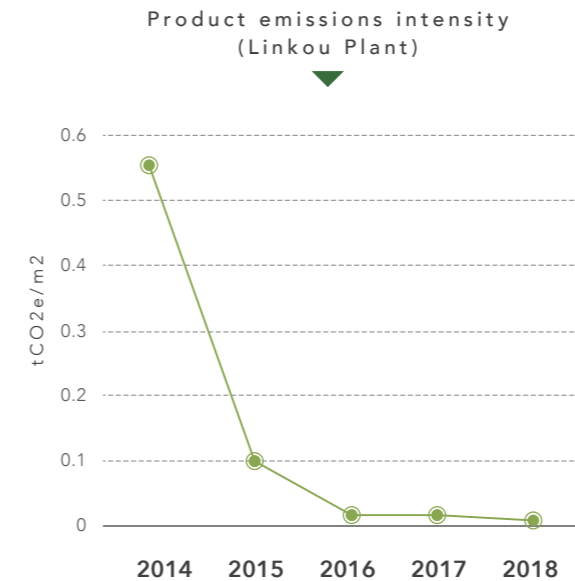
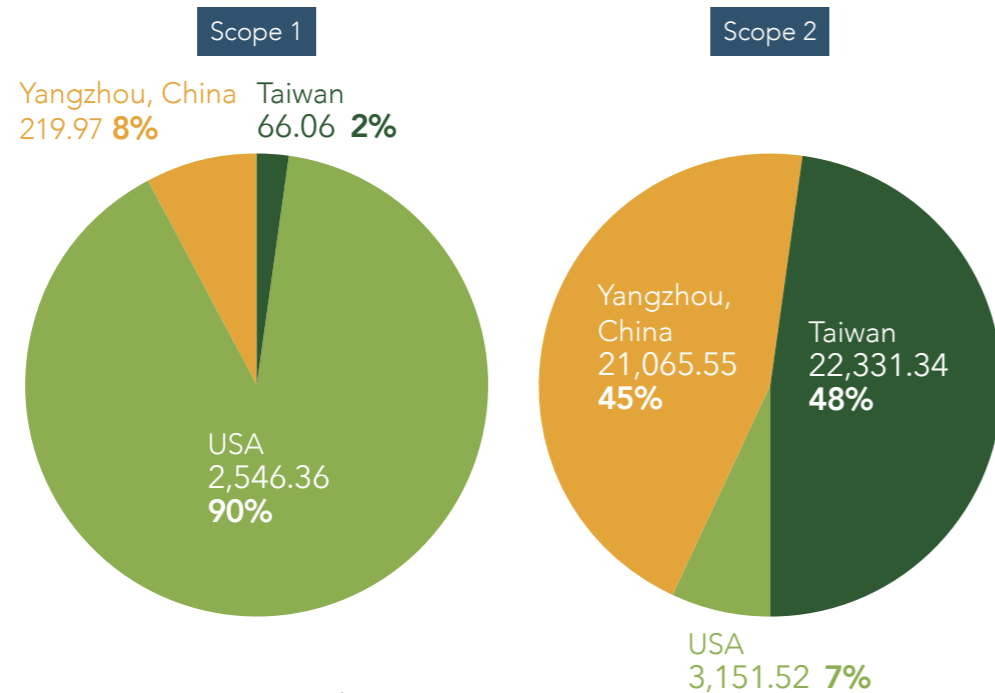
Both the Hsinchu Plant and Yangzhou Plant began GHG inventory in 2005 and has conducted third party verification according to ISO14064-1 in the same year, while the Linkou Plant implemented GHG inventory and external verification voluntarily. In 2013, the Hsinchu Plant became the first group of public and private fixed pollution sources announced by EPA to report GHG emissions. Currently, it completes registration and reporting every year.

As purchased electricity as specified in Scope 2 is still the main source of GHG emissions of all plants, both the pattern and trend of the unit product GHG emissions and intensity of product energy consumption of each plant are alike. As module assembly, the back-end process of panels, is the main task of the Yangzhou Plant, both the unit product energy consumption and the unit product GHG emissions are significantly lower than that of the plants in Taiwan. In addition, the GHG emission of the Hsinchu Plant has reduced significantly after the transformation into a plant for experimentation since the end of 2016.

Total GHG emissions (tCO2e)



2018 GHG emissions of major E Ink production bases worldwide



Management of Energy Saving and Emissions Reduction

In recent years, we have made much effort in energy management. For example, we implemented many energy saving and efficiency improvement plans on relevant plant facility systems, clean rooms, and office areas. Through equipment updates, system parameter optimization, and administrative measures, we have gradually reduced energy consumption and GHG emissions in recent years and maintain them within a controllable range.

1 Increasing renewable energy use

In addition, in support of the renewable energy certificate (ERC) trade promoted by the government, we purchased a total of 262 ERCs in 2017 and 686 ERCs in 2018. With respect to the ERC transaction statistics of the National Renewable Energy Certification Center, we have traded 948 RECs by April 10, 2019. So far, we are an enterprise with the highest REC transactions, accounting for at 37% of the total ERC transactions. We will continue to purchase ERCs to demonstrate our support for green power, energy conservation, and carbon reduction in real actions.

About Renewable Energy Certificate

The Renewable Energy Certificate (REC) is an identity card of green power issued by a third party after verifying the equipment and generation capacity of green energy. Currently, world leading enterprises including Google, Apple, and Facebook have promised to use 100% green power, and REC is an equivalent to the proof of green energy use.

Q&A What are the benefits of REC?

- A : Power companies can apply for REC as the proof of green power generation and sell it to users buying green power; or the environmental benefits of green power are sold to users through REC.
- Buyers can use RECs in the GHG inventory or enterprise ratings at home or abroad, such as the Carbon Disclosure Project (CDP), as the proof of using green power.
- Owners of self-usage power generation equipment can apply for REC as the proof of using green power and use it in enterprise ratings.

For more information, please visit the National Renewable Energy Certification Center at:



<https://www.trec.org.tw/>

In addition, we began to build rooftop solar panels at the Yangzhou Plant in 2014. Currently, the total installed capacity is up to 2,118 KW. The 2018 generation capacity was over 1.95 million kWh for in-house consumption. Along with other energy conservation measures, this capacity accounts for about 8.8% of the plant's total power consumption. Apart from effectively reducing the Scope 2 GHG emissions, this can lower electricity bills to create a win-win situation in the environmental and economic categories. Furthermore, the Yangzhou Plant was rated as an excellent, high-salary, and eco-friendly enterprise which was allowed to directly purchase electricity of lower carbon emissions from power plants in 2016 to further reduce environmental impacts.



Year	Total output capacity (kWh)	Total electricity bill saved (NT\$)
2014	2,202,462	1,520,000
2015	3,275,241	1,590,000
2016	2,143,751	1,267,000
2017年	2,143,136	1,377,000
2018	1,952,345	1,961,000
Total	11,716,935	7,715,000

2. Process Energy Management

Through process equipment replacement, machine operation optimization and management, and installing LED lighting inside the factory building, we endeavor to minimize energy consumption in the production process and thereby achieve the goal of energy saving and emissions reduction. Electricity saving was the main target in the energy conservation program in 2018, and a total of 332,000 kWh of electricity was saved, equivalent to 1,196 GJ.

- Hsinchu Plant Energy Conservation and Carbon Reduction Program Cooling Water Tower Renewal Project
- Although the previous 60HP motor was equipped an inverter, the temperature difference of the cooling water tower was higher as the cooling materials were dirty and worn.
1. The old motor was replaced with a 30HP motor from Liangchi.
 2. The new motor is expected to reduce tower temperature by nearly 2°C.
- ✓ Estimated energy-saving efficiency: 278,899 kWh/year
 - ✓ Cost saved: approx. NT\$836,697/year.



Influence on cooling effect of dirt on cooling materials

► Energy conservation of the kitchen sewage treatment system of the Yangzhou Plant

System adjustment and integration were performed after diagnosing the operating performance of the kitchen sewage treatment system. The sewage treatment system phase I was shut down to achieve energy conservation and maintain effluent quality.

1. Saved electricity by 53,500 kWh/year
2. Saved electricity bills by CNY37,985/year
3. Saved service expense by CNY11,300/year



Note: The performance of each energy conservation program is estimated based on equipment specifications and operating hours before and after improvement.

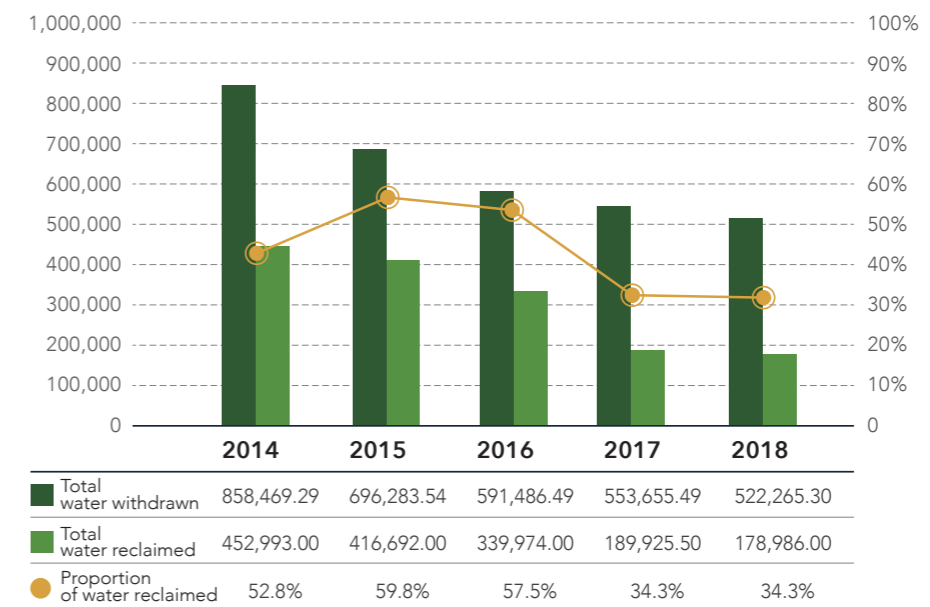
4-3 Resource recycling management

Water Resources Management

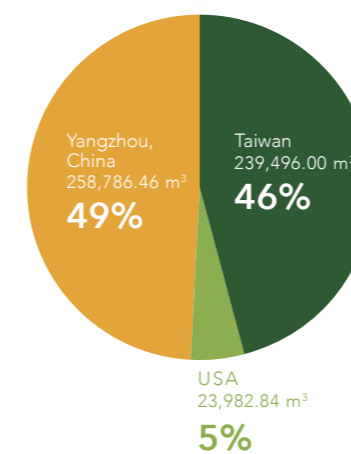
Taiwan is a mountainous island with short and rapidly flowing rivers, making it difficult to effectively store precipitation. In addition, extreme weather events have become increasingly frequent in recent years as a result of climate change, resulting in droughts and torrential rain coming in succession one after another. Floods and droughts have also occurred frequently in China in recent years. Therefore, water resource management has become increasingly important in Taiwan, China, and even across the world. To business operations, how to cope with the crisis from water shortages has become exceptionally important in the past few years.

In recent years, we have spared no effort to save and reclaim water, thus reducing the water consumption of each plant, and the unit product water consumption has also reduced. However, the Hsinchu Plant in Taiwan was previously a display substrate fab and transformed into an experimental plant in 2017. As the total volume of reclaimed water reduced, and unit product water consumption was not accounted for anymore. In addition, while household water consumption unrelated to production dominated most part of water consumption of the Linkou Plant, the unit product water consumption was not disclosed anymore as of 2017. While the operation of the pure water system and regeneration system reduced at the Yangzhou Plant as capacity was lowered, the volume of reclaimed water also reduced as a result. In addition, the unit product water consumption of the Yangzhou Plant has been significantly reduced and maintained as of 2014. However, the unit product water consumption increased slightly in 2018 after the capacity transfer for plant relocation, as capacity reduced due to utilization reduced.

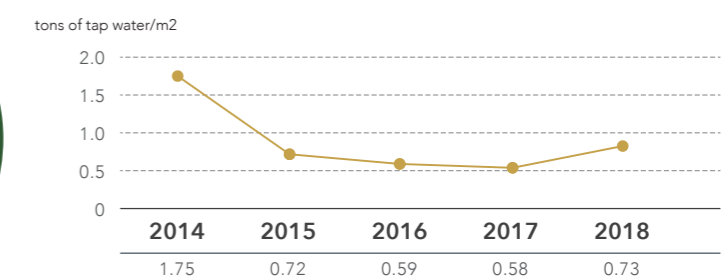
Status of water consumption (m3)



Total water consumption and proportion of major E Ink production bases worldwide in 2018



Proportion of total water withdrawn



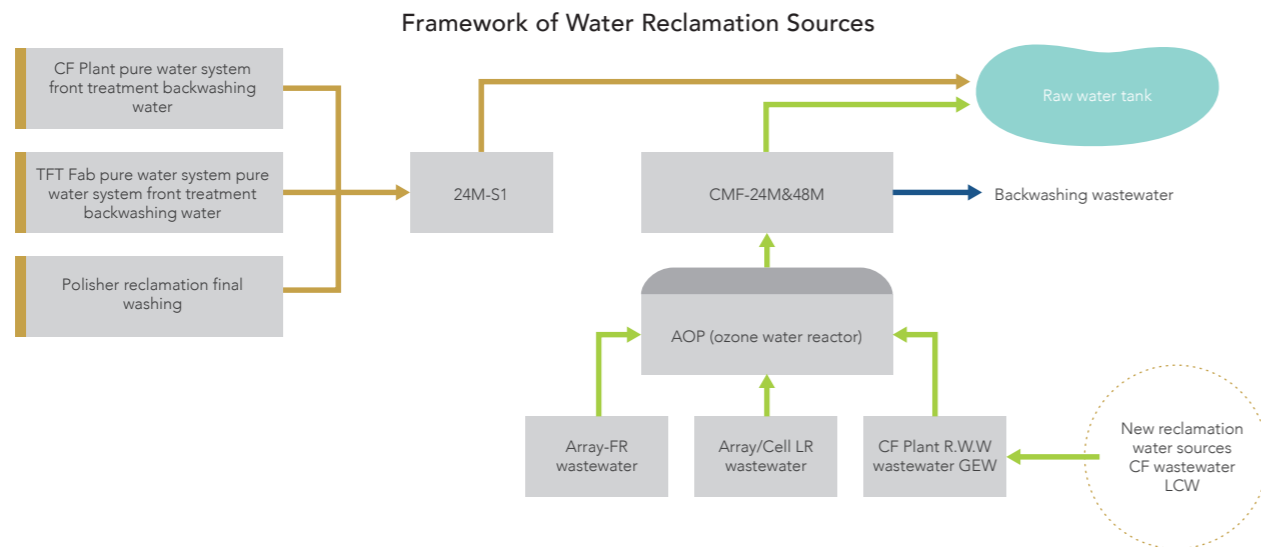
Over the years, we have been making varying efforts to save water and have implemented various water saving plans to reduce tap water consumption and wastewater output every year and maintain a high reclaimed water rate. This suggests that our water resources management and water saving efforts are effective. Furthermore, to cope with the potential water shortage crisis in Taiwan every year, apart from seeking other usable water sources, we reduce water consumption in the process and of public facilities. We further lower the water reclamation threshold to recover more process wastewater for reuse to reduce water demand.

Highlights of 2018 Water Saving Programs

Reclamation of cleanroom low-concentration wastewater of the Hsinchu Plant

In 2018, we continued the 2017 reclamation program which added the electrical conductivity diversion and screening reclamation in cleanroom water drainage. When the pure water demand is low, the ultrapure water spilled from the reclamation system will eventually enter the reclamation system for treatment and reuse. By raising the acceptance criteria of conductivity of reclaimed water in 2018, the volume of reclaimed water was increased.

- ✓ Saved water by 10,069 tons/year
- ✓ Benefits from reclamation up to NT\$203,400/year.



Reclaimed water system treatment unit

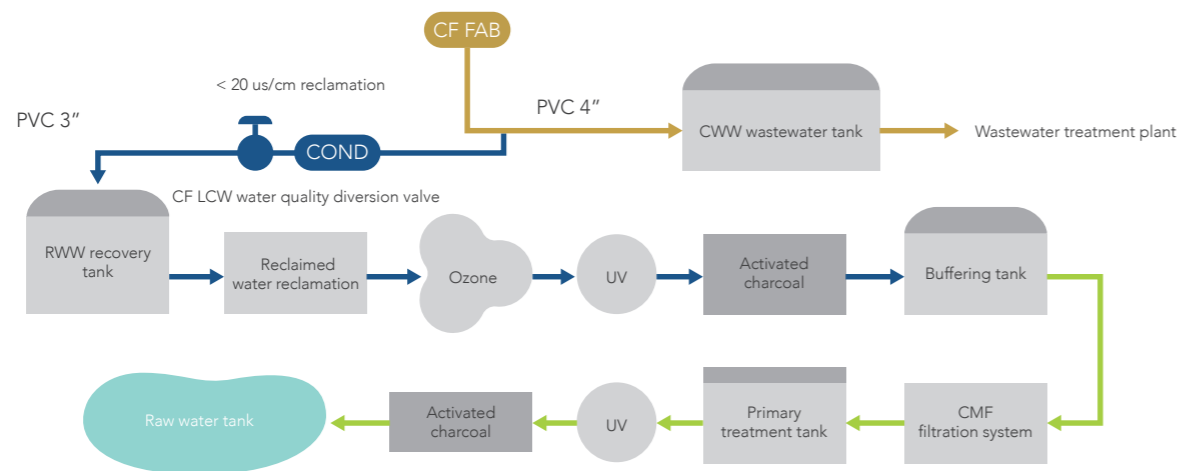
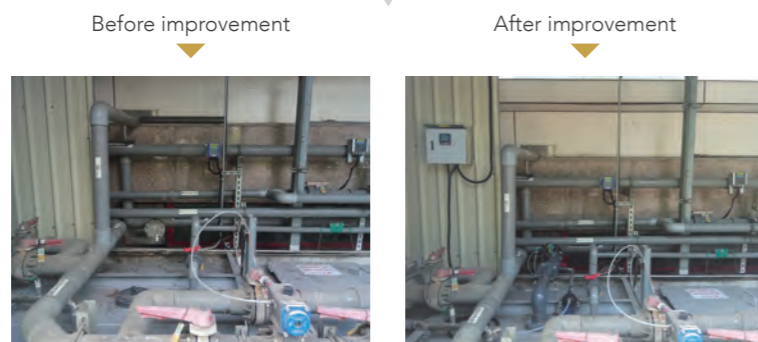


Illustration of CF Plant low concentration wastewater reclamation



Water quality control panel · Reclamation control valve
Water quality detection (electrical conductivity meter)

Water Saving Plan

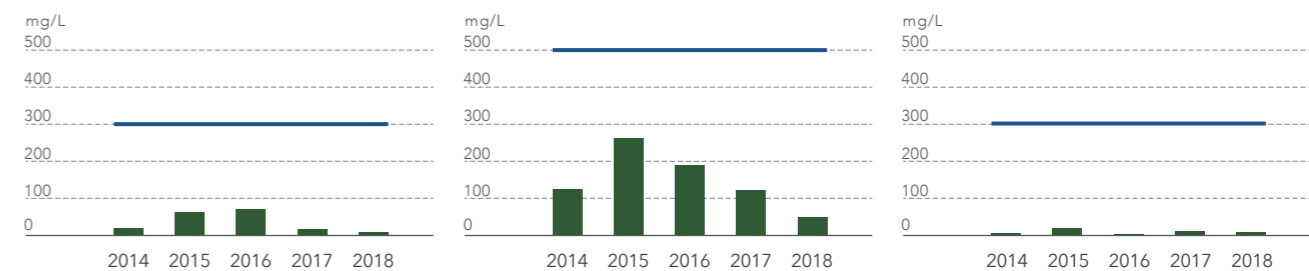
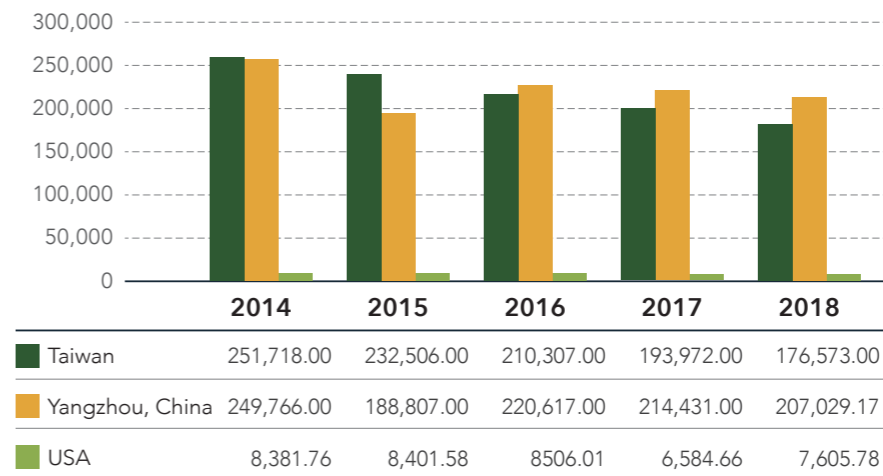
Employee Dormitory Water Conservation Program

- ✓ Saving water through flush bowl modification estimates up to 103,112.5 l/year.

Wastewater discharge and water quality management

Complying with the local legal requirements is the basic principle of process wastewater treatment at E Ink. Therefore, we implement wastewater treatment and effluent quality inspections, periodic monitoring and adjustment of wastewater discharge according to external inspection reports and statistics. In recent years, the quality of effluents has met the effluent standard of the locations where plants are operated.

Volume of wastewater discharge (m3)



BOD Hsinchu Plant

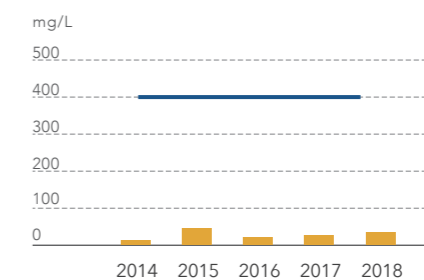
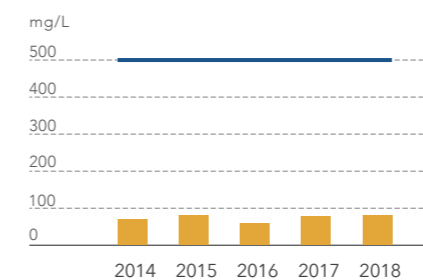
■ BOD
— Controlled Standard

COD Hsinchu Plant

■ COD
— Controlled Standard

SS Hsinchu Plant

■ SS
— Controlled Standard



COD Hsinchu Plant

■ COD
— Controlled Standard

SS Hsinchu Plant

■ SS
— Controlled Standard

In addition, the Yangzhou Plant replaced organic solvents with pure water for substrate cleaning after process optimization at the end of 2010. After water quality evaluation, the quality wastewater discharged from the plant is superior to all indicators of the effluent standard. In January 2011, the Yangzhou City environmental protection authority approved the Yangzhou Plant to shut down the wastewater treatment facility to reduce operating costs and the secondary pollution caused by wastewater treatment. The original wastewater storage tank has since been used as fishing ponds and for hydroponics.

Air pollution control

Air pollutants produced by plants in Taiwan vary as the process differs. VOCs, hydrochloric acid (HCl), and hydrofluoric acid (HF) are the major air pollutants of the Hsinchu Plant, and VOCs is the major air pollutants of the Linkou Plant. Both the intensity and volume of emissions of these pollutants fall within the legal standards. In addition, as the environmental regulations in Taiwan are increasingly strict, we have spared no effort to invest in resources to implement active improvements, use high-performance pollution control facilities, and ensure normal and steady operation of environmental protection facilities, in order to reduce pollutant emissions and thereby reduce environmental impact.

	Air pollutants Annual total emissions (ton)	2016	2017	2018
Hsinchu Plant	VOCs	0.7154	0.3093	0.8814
	HCl	0.0417	0.0053	0.00867
	HF	0.01373	0.00022	0.0017
Linkou Plant	VOCs	0.59	0.33	0.40

1 The Hsinchu Plant calculated total emissions by multiplying the unit hourly emission intensity (from the test report data of the first and second halves of the year) by the annual total operating hours.

2 Based on the statistics on materials consumption and materials input, the Linkou Plant calculated total emissions according to the allowable emissions in operations.

New zeolite rotor and CTO at the Linkou Plant for treating VOCs.

In consideration of the increase in VOCs of the Linkou Plant in pace with its annually increasing capacity, we installed the new zeolite rotor and catalytic thermal oxidizer (CTO) at the Linkou Plant in 2018 to treat VOCs. Both systems will start operation in 2019.

After absorbing VOCs with the zeolite, concentrated waste gases are desorbed and burned in the thermal oxidizer before releasing. The zeolite rotor and CTO are one of the best control technologies in the industry.

In response to the company's energy conservation and carbon reduction policy, we have chosen CTO in place of RTO. CTO can crack and treat VOCs

at a lower temperature to reduce system energy consumption. In addition, we have replaced the fossil fuel with electricity in the burning process to reduce environmental hazards to fulfil our environmental social responsibility in organizational growth.



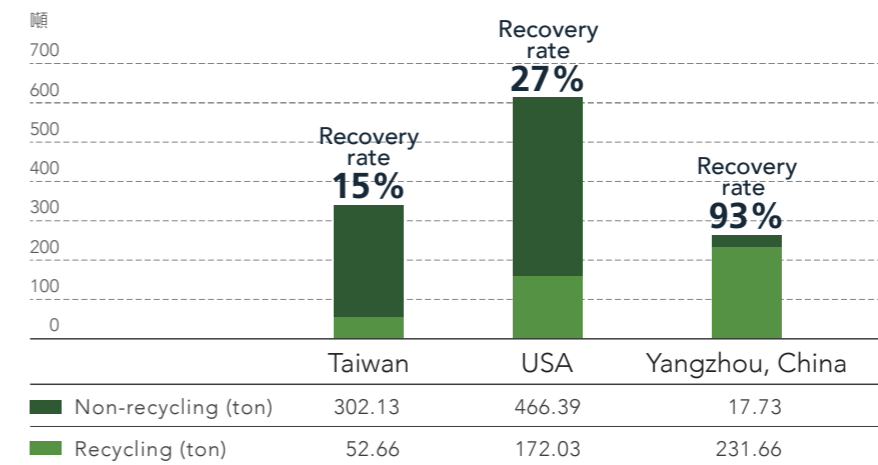
Proper waste management.

At E Ink, legal compliance and environmental impact reduction are the prime concerns in waste management. Therefore, the priority of waste management is: recovery of recyclable waste to achieve waste to resources and material conservation; outsourced incineration of unrecyclable waste after central storage; and landfill when incineration is impossible. Many kinds of in-house solid waste are recoverable and recyclable. By reinforcing garbage classification, we reduce the output of general industrial waste for garbage reduction and waste to resources.

Based on the business opportunities and management of waste disposal contractors, we arrange the annual audit program to administer waste disposal and processing contractors. Through random in-car inspection, we determine if contractors legally dispose of and process our waste to control the flow and final disposal of waste. In 2018, we participated in the Allied Association for Science Park Industries and the Taiwan TFT LCD Association to perform joint audits on the common waste disposal/processing contractors of members. We also conducted onsite inspections and other documentary evaluations to evaluate contractors through different aspects and from different angles, such as health, safety, environmental protection (HSE), and risk management. Based on the onsite inspection results, we request for continual improvement from contractors. We also provide the audit results for the reference of members to select contractors.

2018 Waste Outputs and Disposal Methods

Waste type	Disposal method	2018		
		Taiwan	USA	Yangzhou, China
General Waste	Total output (ton)	214.26	544.31	231.74
	Incineration (ton)	167.39	348.32	-
	Landfill (ton)	4.77	24.95	-
	Recycling (ton)	42.10	171.04	225.04
	Others (ton)	0	-	6.7
Hazardous waste	Total output (ton)	140.53	94.11	17.65
	Incineration (ton)	126.22	93.13	30.43
	Landfill (ton)	0	-	-
	Recycling (ton)	10.56	0.99	6.62
	Others (ton)	3.75	0.31	2.60
Total	Total output (ton)	354.79	638.42	249.39
	Incineration (ton)	293.61	441.45	30.43
	Landfill (ton)	4.77	24.95	-
	Recycling (ton)	52.66	172.03	231.66
	Others (ton)	3.75	0.31	9.30



The total waste output of the Hsinchu Plant tends to reduce as a result of transformation. In recovery and recycling, the plant refines electronic grade chemicals for reuse in the process. This suggests that our material management and waste management policies are effective. As the Linkou Plant mainly produces and coats semi-finished materials, it uses organic chemicals that will produce organic waste liquids. Waste in the Linkou Plant has increased in recent years as the output rose gradually. For waste produced in the plant, some production waste is mainly plastics, is treated in-house for final disposal (incineration or physical), and some is recovered for recycling, except for household waste. We also continuously advocate the waste sorting policy to employees and equip kitchens and employee rest areas with trash cans for different types of waste: paper waste, plastics, aluminum foil packages, glass, and metal cans. We even label each trash can in both Chinese and English for local and foreign employees to identify them in order to enhance the recovery and recycling rate of household garbage.

To establish a complete waste management mechanism, the Yangzhou Plant began keeping a full record of waste outputs in 2015 for the reference of management. Recyclable packaging materials, such as paper and plastics, are the main types of waste. The 2018 waste recycling rate was up to 95%. The Yangzhou Plant also encourages employees to make proposals for cutting expenses in the production process, including machine efficiency enhancement, waste reuse, used paper recovery and recycling, and use frequency enhancement of consumables.

Compressor air filter conservation program

Before improvement: The compressor directly exchange air outdoor through the shutter, and the air filter replacement cycle was 2,000h/time.

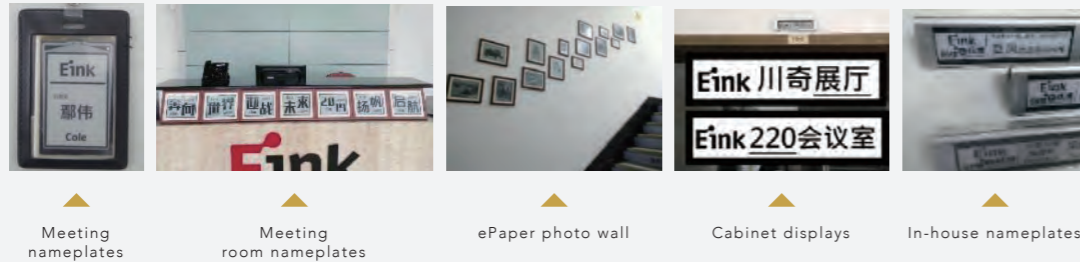
After improvement: The waste high-performance filter in the make-up air unit (MAU) is installed inside the shutter of the compressor room to enhance the purity of air to extend the air filter replacement cycle to 5,000h/time.

Effectiveness: Reduce air filter replacement frequency to reduce 60% air filter demand, saving up to about CNY7,200/year.

ePaper Revitalization

In support of the circular economy, the Yangzhou Plant established the ePaper Revitalization Project team to recycle and revitalize ePaper products in 2017. By integrating with product use diversification, they make "minimizing depletion by replacing paper with EPD" part of our corporate culture.

By 2018, a minimum of 10 ePaper recycling plans have been developed to recycle over 130 EPDs.



Meeting nameplates

Meeting room nameplates

ePaper photo wall

Cabinet displays

In-house nameplates

Packaging Materials Conservation Program

The Yangzhou Plant implemented the Packaging Materials Conservation Program in 2018 to effectively reduce packaging materials consumption. Apart from saving packaging materials, the program helps reduce transportation cost to bring multiple benefits.

Replacing plastic wrap with reusable string in packaging.

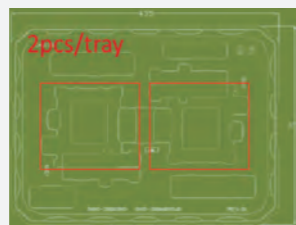
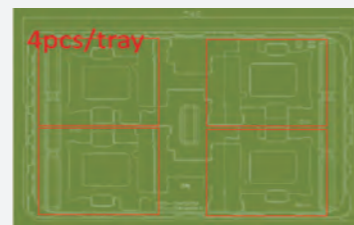


Before improvement



After improvement

Increasing tray layers in the carton.

Before improvement
Only two EPDs in each tray.After improvement
Four EPDs in a tray to save cartons, packaging materials, and storage space.

Encouraging employees to recycle waste paper at home

To encourage employees to develop the resource recycling habit, the Yangzhou Plant and YFY organized the "Toilet Paper for Waste Paper" campaign in 2018 for employees to recycle waste paper at home to exchange toilet paper at the plant to support resource recycling.

Total quantity of recycled waste paper: 7,400kg



4-4 Building a sustainable supply chain

In Taiwan, our major operational locations include the Hsinchu Plant in the Hsinchu Science Park and the Linkou Plant in the Hwa Ya Technology Park (HYTP). In China, our major production base is located in Yangzhou City, Jiangsu Province. The ePaper is our core product. In addition to the self-produced FPL, we need other key parts and components, including optical glass, TFT panels, TFT driver ICs, touch panels, light bars, optical clear adhesives, optical films, FPCs, various electronic grade chemicals, and a range of other materials, parts, and accessories, to manufacture the ePaper module. Therefore, suppliers have always been our major partners.

To fulfill the commitment for local procurement and cope with the production cut of consumer LEDs of Japanese suppliers, we adjust our procurement strategy to expand the scale of local procurement to work out the ideal of local co-prosperity.

Proportion of Local Procurement in 2018

Item	Materials		Parts and Accessories		Machines and Equipment		Total Purchase	
	Taiwan	China	Taiwan	China	Taiwan	China	Taiwan	China
Local procurement amount (NT\$1,000)	642,950	2,258,198	29,192	9,338	69,031	46,534	741,173	2,314,069
General procurement amount (NT\$1,000)	2,150,222	12,089,774	29,641	10,576	70,803	57,677	2,250,666	12,158,028
Percentage of local procurement amount (%)	29.90%	18.68%	98.48%	88.29%	97.50%	80.68%	32.93%	19.03%
Number of Suppliers	Taiwan	China	Taiwan	China	Taiwan	China	Taiwan	China
Number of local procurement suppliers	81	45	90	40	43	22	214	107
Total number of local procurement suppliers	138	77	92	41	45	29	275	147
Percentage (%) of procurements from local suppliers	58.70%	58.44%	97.83%	97.56%	95.56%	75.86%	77.82%	72.79%

*Plants in Taiwan purchase from Taiwanese suppliers, while plants in China purchase from Chinese suppliers.

Compared to 2017, local procurement in Taiwan dropped significantly because of the direct procurement of devices from Taiwan-based assembly plants in Yangzhou in 2018. Although these device suppliers are in China geographically, their parent companies are Taiwan-based manufacturers. Therefore, our cooperation model with local suppliers remains unchanged. After all, maintaining co-prosperity and co-development with local suppliers is our business strategy.

Supply Chain Cooperation

As most customers purchase custom products from us, we need to co-develop most raw materials, parts, and accessories with customers and suppliers in order to pursue a business model for long-term cooperation and sustainable development.

Touch panel

- We support local suppliers through co-design and co-development to improve their production techniques, technical standards, and product quality in order to promote the overall development of the optronics industry. In 2017, we launched cooperation with world-leading touch panel suppliers to develop the pen writing e-Note.

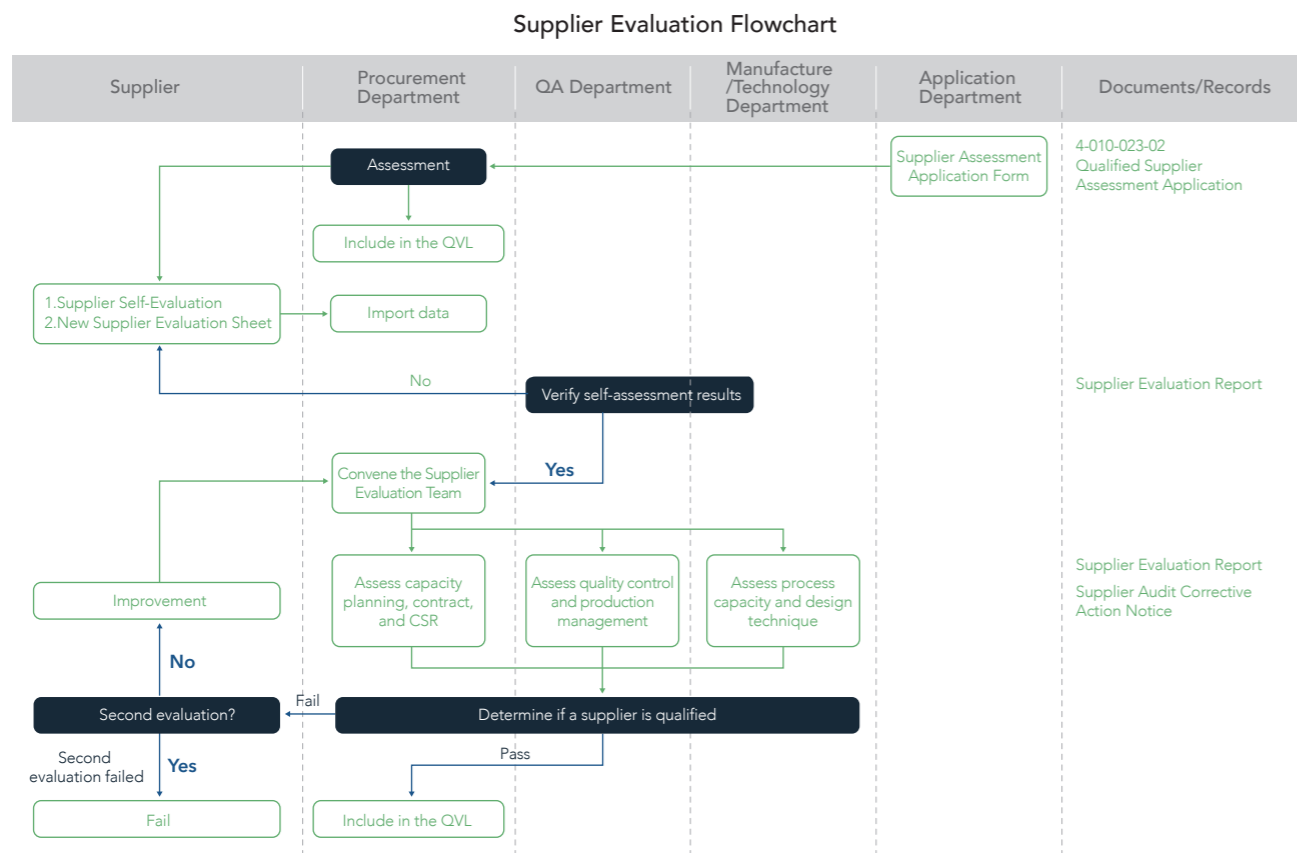
Panel suppliers and TFT substrate suppliers

- In 2016 we furthered our collaboration with leading Taiwanese TFT LCD manufacturers for the in-depth development of TFT substrates to engage in R&D with their TFT equipment and R&D resources. We have also announced at home and abroad the R&D outcomes achieved with domestic TFT LCD partners to achieve the “technology in Taiwan” commitment.
- In response to the co-prosperity and co-development with local suppliers strategy, in 2017, we embarked on in-depth collaborative TFT substrate technology development with leading TFT LCD manufacturers in mainland China to diversify our TFT substrate sources, progressively implement local procurement, shorten the carbon footprint from transportation, and create a win-win concept.

Supplier Evaluation Process

We have established a complete set of procedures for supplier evaluation to provide a dependable reference for the cultivation, evaluation, and verification of suppliers and select quality suppliers to fulfill our requirements for production and business operations.

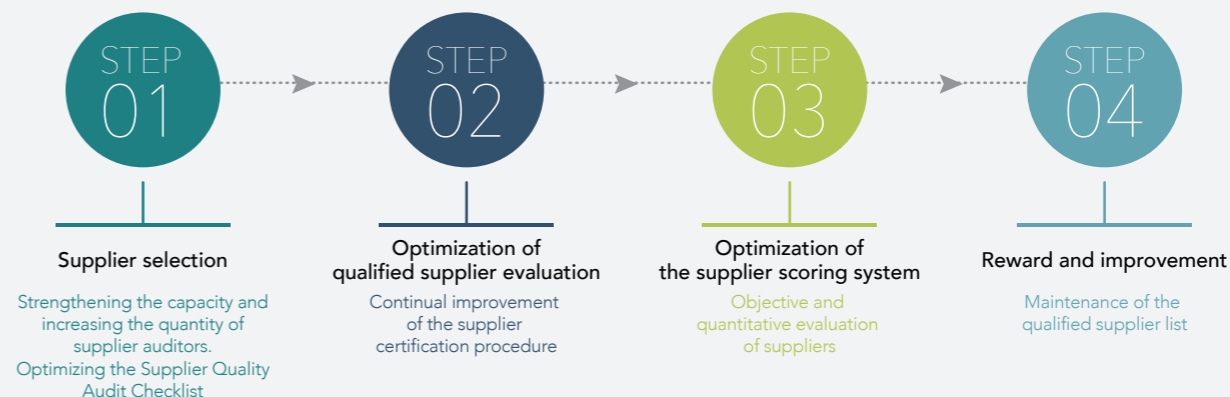
Although the display industry is a mature industry, and we have regular suppliers of various parts and components, in consideration of the cost, delivery time, quality, and other factors, it is necessary to keep sourcing new suppliers to ensure reliable supply and meet customer requirements. Before accepting a new supplier, the procurement unit will first gather its information and perform the risk assessment to exactly capture the quality and timeliness confirmed by suppliers, demonstrate the effectiveness of supplier cultivation, and assess if it can be accepted as a qualified supplier for the reference of future procurement by the related units.



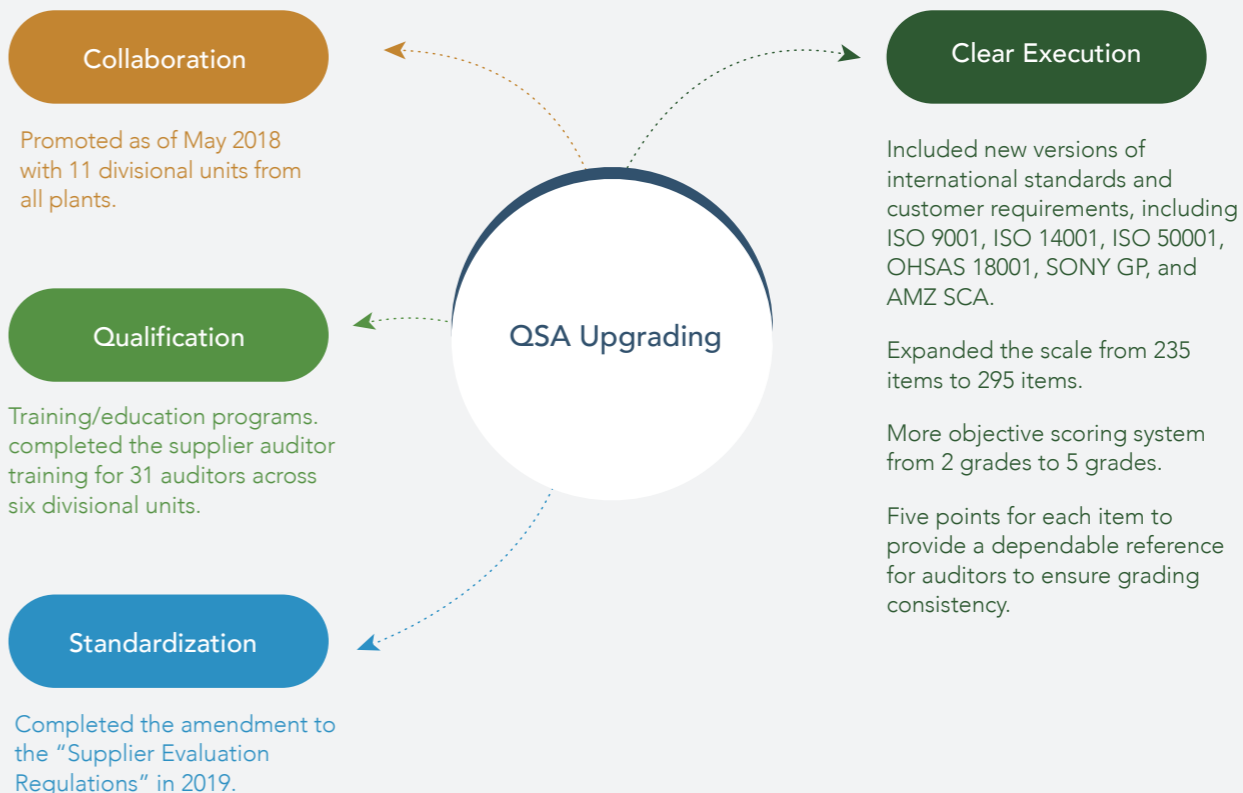
For long-term materials suppliers, we perform an annual audit and the quarterly evaluation to help them improve manufacturing technology, quality standard, and management capacity and reduce cost to ensure the uninterrupted supply of materials and create a win-win partnership with them.

2018 Supply Chain Management Optimization Project

In response to the complication of the routine supply chain ecosystem management and the rapidly changing macro environment, an effective reform is required for the existing supply management and evaluation system. The reform mainly covers the optimization of (1) the qualified supplier evaluation procedures and (2) the supplier scoring system. With such reform, we aim to build a sustainable supply chain for co-existence and co-prosperity with suppliers.



Optimization of qualified supplier evaluation



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Supplier CSR Audit Items

Aspects of Evaluation	Foci of Evaluation
Environmental management system and OHS management system	<ul style="list-style-type: none"> OHS performance certification
EIA	<ul style="list-style-type: none"> Local negative environmental impacts Emission Permit Waste management Punishment for environmental protection
Health and safety	<ul style="list-style-type: none"> OHS unit and personnel Safe workplace Occupational hazards and disputes Hazardous chemicals management Operator certificates and licenses Health/Physical examinations Health examinations for RoHS instrument operators
Labor Practices Assessment	<ul style="list-style-type: none"> Job training No child labor Compliance with overtime work regulations Non-discrimination Violation of freedom of association and collective bargaining
Social Assessment	<ul style="list-style-type: none"> Clean Transaction Commitment Whistle-blowing mechanism

Results of 2018 Supplier Audit

Year	Supplier Type	Environmental Assessment	Human Rights Assessment	Labor Practices Assessment	Social Assessment
2018	Number of New Suppliers	5	5	5	5
	Number of Existing Suppliers	10	10	10	10

Note: All new suppliers pass the CSR evaluation criteria.

The average score of the 2018 supplier audit was 89.09 points, including one new supplier was failed by the audit team in the first-time audit. After our guidance, this supplier passed the second audit. After our guidance, all other suppliers completed the improvements of defects found in the annual audit.

Supplier Clean Transaction Commitment

Since 2018, after the exchange with other companies in the business and reviewing the status of business operations, we revised and updated the Clean Transaction Commitment and requested all suppliers (including suppliers of our subsidiaries) to sign the new Clean Transaction Commitment.

Proportion of suppliers signing the "Clean Transaction Commitment":

By April 12, 2019, 94% of suppliers have signed the new "Clean Transaction Commitment".

Focus of the Clean Transaction Commitment:

- Suppliers shall abide by the law, regulations, and administrative regulations of the business.
- Suppliers shall maintain integral cooperation and fair competition.
- Suppliers shall not request for or offer illegal or undue benefits from or to E Ink employees.
- Suppliers shall accept and abide by all applicable anti-corruption laws and regulations now and future. Suppliers shall abide by the related regulations established by E Ink and applicable to the counterparts and agree not to request, promise, accept, or offer bribes and other undue or improper benefits from and to personnel and related parties or designated parties of E Ink.
- Suppliers shall proactively support E Ink's investigations, report the truth and provide the related data.
- Suppliers shall report the unethical act of E Ink personnel, such as corruption or benefiting others.

Supplier Risk Assessment

In consideration of timeliness and cost, we will avoid new suppliers with high financial, operational, production, and technology risks. After gathering the background information of a supplier, the procurement unit will conduct a risk assessment on the supplier for the reference of future cooperation of the related units. The procurement unit will also perform periodic risk assessment on existing suppliers to reduce the supply chain disruption risk.

Assessment and control of second source

There are three main reasons for seeking a second source of materials: single source avoidance, supplier ECN, and procurement cost reduction. Currently, through product management, supply chain quality engineering, R&D, and meeting with procurement personnel, the second source is first introduced at the procurement meeting. With the agreement of meeting participants, R&D personnel will plan the tests of the second source. Personnel of the supply chain quality engineering will check if the related procedures comply with the ISO requirements. The second source platform worked well in 2018 is attributed to the complete planning of the budget for verification of second source at the beginning of the year. At the end of 2018, the budget utilization rate was over 95%. The achievement of the second source includes the timely supply of PCBs in the second half of 2018, when the original flexible PCB supplier was forced to shut down operations for violation of the environmental protection requirements in mainland China. In addition, the second source shortened the delivery time and made delivery more flexible, as witnessed by the new supplier of the anti-glare coating for the e-book and the second wafer packaging and testing source proposed by the IC supplier. The value of the second source platform is to fill the insufficiency of the supply source at the product design phase and bring the possibility of supply chain optimization after mass production. The second source platform also encourages existing suppliers to make continual improvement in the quality and cost advantage of materials. The control of the quality system is the key to success of the second source platform. With the quality system, we can verify a second source with defined requirements and more efficiently. After customer acceptance, we can continue to ensure the quality of mass production.

Financial Risk

In recent years, a number of suppliers were either bankrupted or restructured due to financial problems. To capture the status of the supply chain and stabilize materials supply, we gathered and updated the business status and financial information, including the gross profit margin, net profit margin, current ratio, and quick ratio, of about 10 major suppliers every month in 2018 for routine prevention and risk management.

As an outlook for 2019, we will continue to update the financial status and market information of major suppliers quarterly to confirm the following:

- the operational status, liabilities and operating cost of suppliers through financial statement analysis.
- the movement of leading suppliers and the market status of a material.
- assessment of various risks and opportunities.

Environmental risk

In 2018, FPC suppliers brought supply tension to us due to environmental protection problems. To prevent the recurrence of supply tension, we performed a targeted survey on nine suppliers with waste emission problems in mainland China.

Based on their responses, we could understand if there is risk on supply discontinuity due to the environmental protection audit of the Chinese government. In the future, we will continue to monitor suppliers, take precautionary actions, and perform risk management to ensure materials supply continuity.

Supplier Feedback Channels

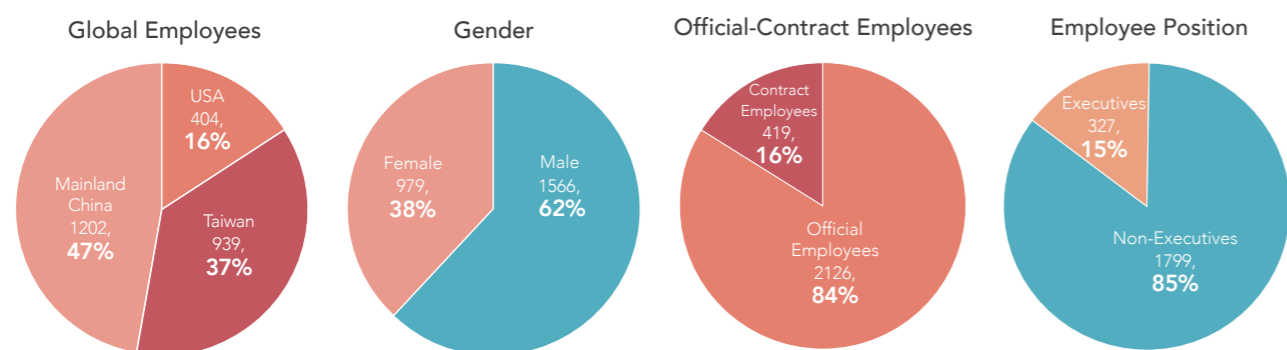
In supplier feedback channels, apart from business visits and exchange and the supplier evaluation process, the Yangzhou Plant arranges auditors to participate in large procurement projects to provide impartial and objective feedback channels to fortify cooperation relationships with suppliers.



Chapter 05 Happy · Workplace Growth

5-1 Management Overview

2018 Employee Overview

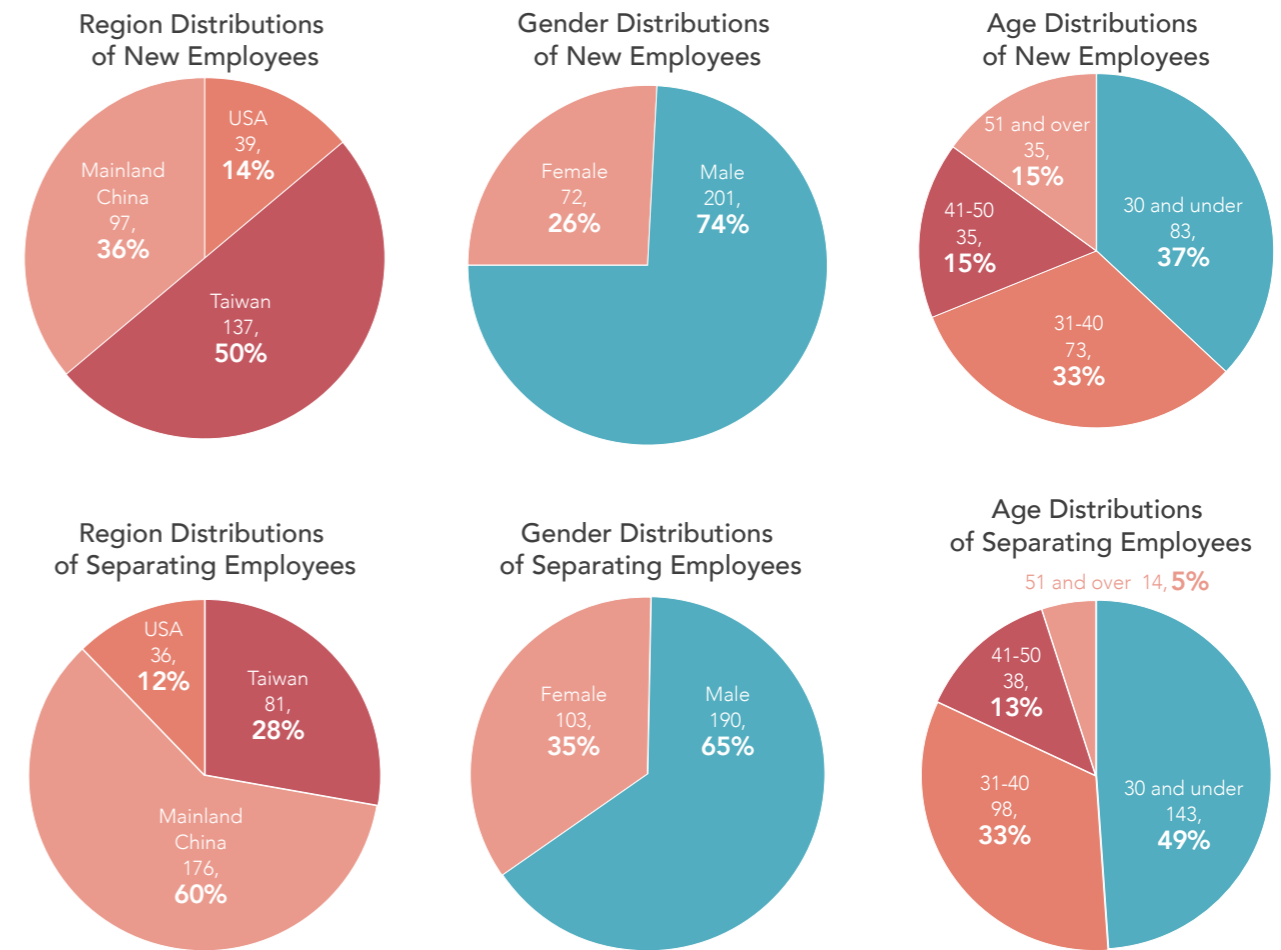


1 Executives are manager and above.

2 The Yangzhou Plant actively promotes industry-academia programs to recruit interns every year for in-house practicum and offers interns with training/education on related professional skills. The internship usually lasts for 3-6 months, and all are direct labor. In 2018, there were 2,383 interns in total, including 1,544 males and 839 females.

3 At the end of 2018, the workforce structure of the Yangzhou Plant included 114 Contract Employees and 283 interns. In Taiwan, all were direct laborers.

In addition, we respect the right of employment for people with disabilities and abide by the laws and regulations. In 2018, apart from hiring three severely visually impaired masseurs, we hired five employees with moderate to mild disabilities, at a proportion greater than Taiwan's statutory requirements.



Plants in Taiwan underwent an operational transformation in 2016. After Hsinchu Plant adjusted the mode of production, the employee turnover rate was stabilized. To focus on ePaper technology development, Taiwan HQ recruited more R&D staff in 2017 to strengthen enrich R&D energy. We also increased the capacity of the Linkou Plant by hiring more technical workers to lay the foundation for profit-making in 2018. Employees in Taiwan continued to increase in 2018. Apart from recruiting new employees for business expansion, the employee turnover rate reduced, and retention rate of new employees rose from 95% to 99%. In addition, we enhance communicating our core concept, optimize the competence screening and evaluation system, and integrate talent interviews to recruit like-minded new employees. We also enable new employees to fuse and identify with our corporate culture and goals more quickly to enhance the employee retention rate.

In employee recruitment, apart from human resources websites and campus recruitment, we engage in talent pool development and employer branding to diversify recruitment channels. For schools with departments highly related to our core business, we launch the campus sprouting campaign by sending elite staff in related fields to give keynotes to develop the brand image in students and stimulate their interest in the ePaper. We also organize competitions for students with E Ink products to implement employer branding through massive exposure of E Ink products and publicity of E Ink technologies, in order to attract more students to join us. In talent retention, apart from encouraging employees to extend their breadth through internal job rotation, we optimize the performance evaluation system and items to give employees more opportunities for feedback and learning and a greater sense of achievement.

In the case of the Yangzhou Plant, as returning home for the Spring Festival (Lunar New Year) is a custom in mainland China, some employees will stay home and change their job, thus raising the employee turnover rate. As the Wage Reform Program is under progress at the Yangzhou Plant, the employee turnover rate has reduced significantly after the average wage and benefits of employees were raised and increased, and customer satisfaction was also higher than 2017 as shown in the survey.

In Taiwan, we hire members of the senior management locally. For the Yangzhou Plant in China, although expatriates from Taiwan fill most posts in the senior management, we also hire as many locals as possible in the medium management to effectively communicate and implement operational performance.

1 Senior management refers to vice presidents or officers of higher levels in Taiwan and to division directors or officers of higher levels at the Yangzhou Plant. In Taiwan, all senior management members are locals, while 12.5% locals at the Yangzhou Plant.

2018 Campus Sprouting Campaign

To brand E Ink and expand channels for talent recruitment, we actively implement the campus sprouting campaign. Foci of the 2018 Campus Sprouting Campaign

- Discovering E Ink**
 - Campus keynotes for postgraduate students.
 - E Ink introduction and ePaper description with demonstration to stimulate students' interest in lively and interesting ways.
- Product Promotion**
 - Reversi Contest: Organized the Reversi contest with E Ink products. Other E Ink products were displayed onsite for the lucky draw. To massively expose E Ink products, we grant students the chance for the lucky draw after they took photos with and pushed posts on E Ink products.
- Establishment of Interaction**
 - We will plan interactive courses and train two teaching assistants to assist with group teaching of the ePaper theory for students to understand ePaper better, to be implemented in 2020.

Discovering E Ink

Two keynotes for postgraduate students at National Chiao Tung University.



Keynote 1: New Technology Application of the ePaper (inductive charging)



Keynote 2: New Product Application of the ePaper

Product Promotion

We proactively participated in the Photonics Week of the National Chiao Tung University and co-organized the Reversi contest with the photonics student union using E Ink's Reversi console. The console surprised students and significantly stimulated their interest in E Ink.

We also displayed other E Ink products and organized the lucky draw and quiz for students to understand our products better.



Live broadcast of the ePaper Reversi Contest



ePaper Products Showroom

5-2 Building A Positive, Beautiful and Happy Workplace

Respect for Human Rights

E Ink Human Rights Policy

All E Ink locations abide by the local rights and regulations, the International Bill of Rights, and the ILO Declaration on Fundamental Principles and Rights at Work to eliminate acts that prejudice human rights, to treat and respect employees, contract and temporary personnel, and interns with dignity.

The E Ink Human Rights Policy applies to E Ink and its affiliates.

Implementation

1. Provide a safe and healthy work environment in compliance with related laws and regulations.
2. No use of child labor.
3. Ban forced labor.
4. Eliminate discrimination to ensure equal opportunity.

Apart from strict compliance with the Labor Standards Act and the related laws and regulations, we are committed to respecting human rights in the employment, management, and development of employees. In Taiwan, we arrange training/education on policies in relation to human rights in the orientation training. In 2018, 56 hours of related training/education were given to all 112 new employees in 10 sessions.



Labor-Management Relations and Communication

While talents are one of the most important corporate assets to E Ink and pursuing labor-management harmony is the main drive to achieve corporate growth, we build internal consensus through official and unofficial communication channels to realize our corporate culture: One Team, One E Ink. To coordinate labor-management relations and promote labor-management cooperation, we have established diversified mechanisms to meet different communication demands in order to establish sound labor-management interaction and for employees to develop organizational commitment and improve work enthusiasm. As the internet technology advances, plants in Taiwan set up a group on instant messenger LINE in 2017 to keep employees updated with the latest organizational information in the shortest time.

Labor-Management Meetings/Employee Welfare Committee Meetings

We hold labor-management meetings every quarter for employee representatives to make suggestions for and express their opinions about specific topics in order to ensure fluent labor-management communication and reach consensus with the company.

Intranet: MyEink/E Inker

- It is an exchange platform for communicating business philosophy and establishing corporate culture or publishing corporate news or announcements.
- E Inker

Employee Suggestion Boxes

There are the president's box, plant manager's box, and division director's box.

Employee Seminars

We organize employee seminars or employee congresses every quarter for employees to openly and directly communicate with the management.

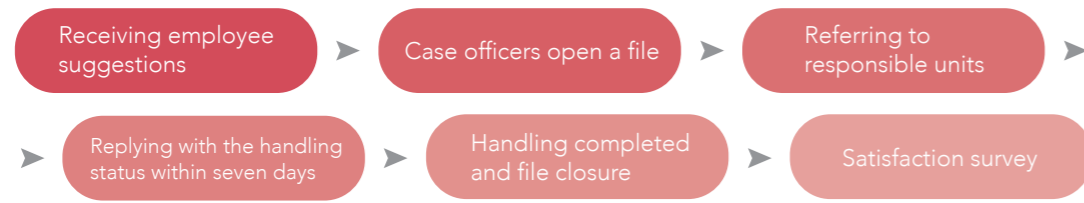
Labor Union (Yangzhou Plant)

We have set up a labor union in the Yangzhou Plant. Employees can express their opinions regarding workforce management and plant operations through labor representatives. The relevant responsible departments will handle and follow up their opinions.

The Yangzhou Plant also sets up an official account on instant messenger WeChat for employees to communicate and exchange with one another, and to share the wonderful activities of E Ink with outsiders as well!



Employee Suggestion Handling Process



Communication meetings with employees at plants in Taiwan in 2018

Meeting	Number of Meetings	Number of Proposals	Number of Closed Cases
Labor-Management Meeting	4	26	26
Employee Welfare Committee Meetingzgs	4	18	18
Seminars with Direct Production Workers	1	0	0
Seminars with Indirect Production Workers	4	0	0

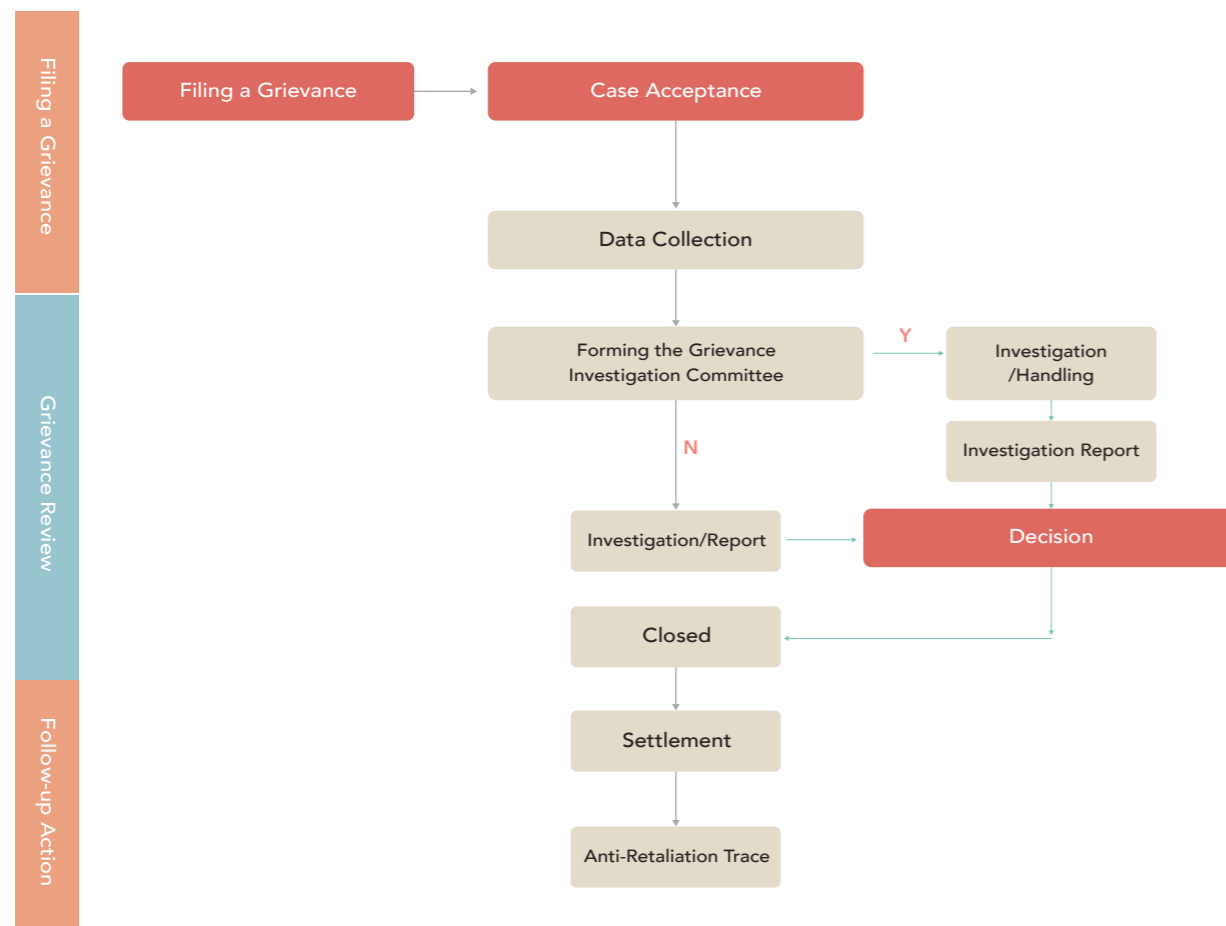
e-DM for internal communication



Employee Grievance Mechanisms

To prevent workplace sexual harassment, unfriendly work environments, and improper leadership from causing physical and mental stress on employees, we have specifically established regulations for addressing and handling grievances to effectively resolve problems, enhance organizational commitment, and raise employee productivity.

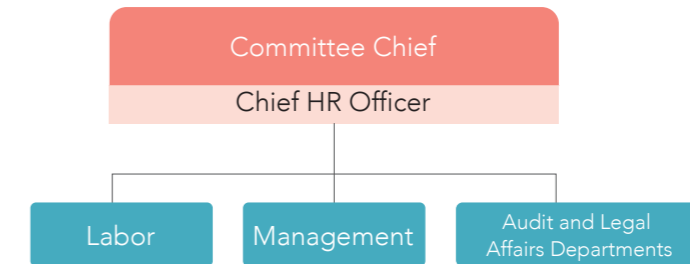
Employee Grievance Flowchart



Grievance Investigation Committee:

- 1.Understanding, coordination, and follow-up of a grievance and compilation of the closure report.
- 2.Evaluation and decision of a grievance.
- 3.Handling grievances on sexual harassment, unfriendly work environments, and improper leadership based on the non-disclosure, objectivity and impartiality principles.
- 4.Maintaining confidentiality in investigation and protecting the privacy and personality rights and interests of the concerned party.
- 5.Preventing the complainant from retaliation of any form after case closure.

Framework of the Grievance Investigation Committee



Wages and Benefits

At E Link, we build a friendly workplace with a good wage system, thoughtful benefits, and a quality environment for employees to balance work and everyday life properly. We emphasize an organizational culture featuring accountability, teamwork, and innovation and value the effort of each employee. Based on local laws and regulations and market standards, we review our wage and benefit policies regularly to connect with the market and design a fair and competitive remuneration system. We pay new employees better than the local minimum wage. Most importantly, we ensure equal remuneration for employees regardless of gender, race, religion, political affiliation, marital status, and union membership. In addition, based on the principle of profit sharing, we offer performance and year-end bonuses based on the company's business performance and the employee's own performance to attract and retain outstanding talents.

To improve overall employee benefits, we salary employees 13 months a year as of 2018. Besides enhancing our average wage competitiveness in the high-tech industry to enable us to recruit better talents, this adjustment is also recognition of the continuous contributions of employees.

Comparison between the Standard Wage of Base-Level Employees (Workers) and Local Minimum Wage

Item	Taiwan	China
Male	1.03	1.1
Female	1.03	1.1

Female-to-male wage ratio

Employee type	Male:Female (Taiwan)
Non-unit heads	1 : 0.97
Unit heads	1 : 0.88
Workers	1 : 0.97

* Note: As most senior executives are male, the wage ratio in the unit head category is diverse.

Number and average wage of non-executive full-time employees and difference from the previous year

Employee type	2017	2018*	Difference
Number of non-executive full-time employees	785 persons	877 persons	Increased by 92 persons
Total amount of wage of non-executive full-time employees	NT\$823,921,000	NT\$933,630,000	Increased by NT\$109,709,000
[Average Wage] of non-executive full-time employees	NT\$1,050,000	NT\$1,065,000	Increased by NT\$15,000

*Data of 2018 has been audited by CPAs.

Every month we contribute to the employee retirement reserve and labor pension fund with regard to the Labor Standards Act and the Labor Pension Act to ensure employees will not need to worry about their later life after devoting their efforts to E Ink.

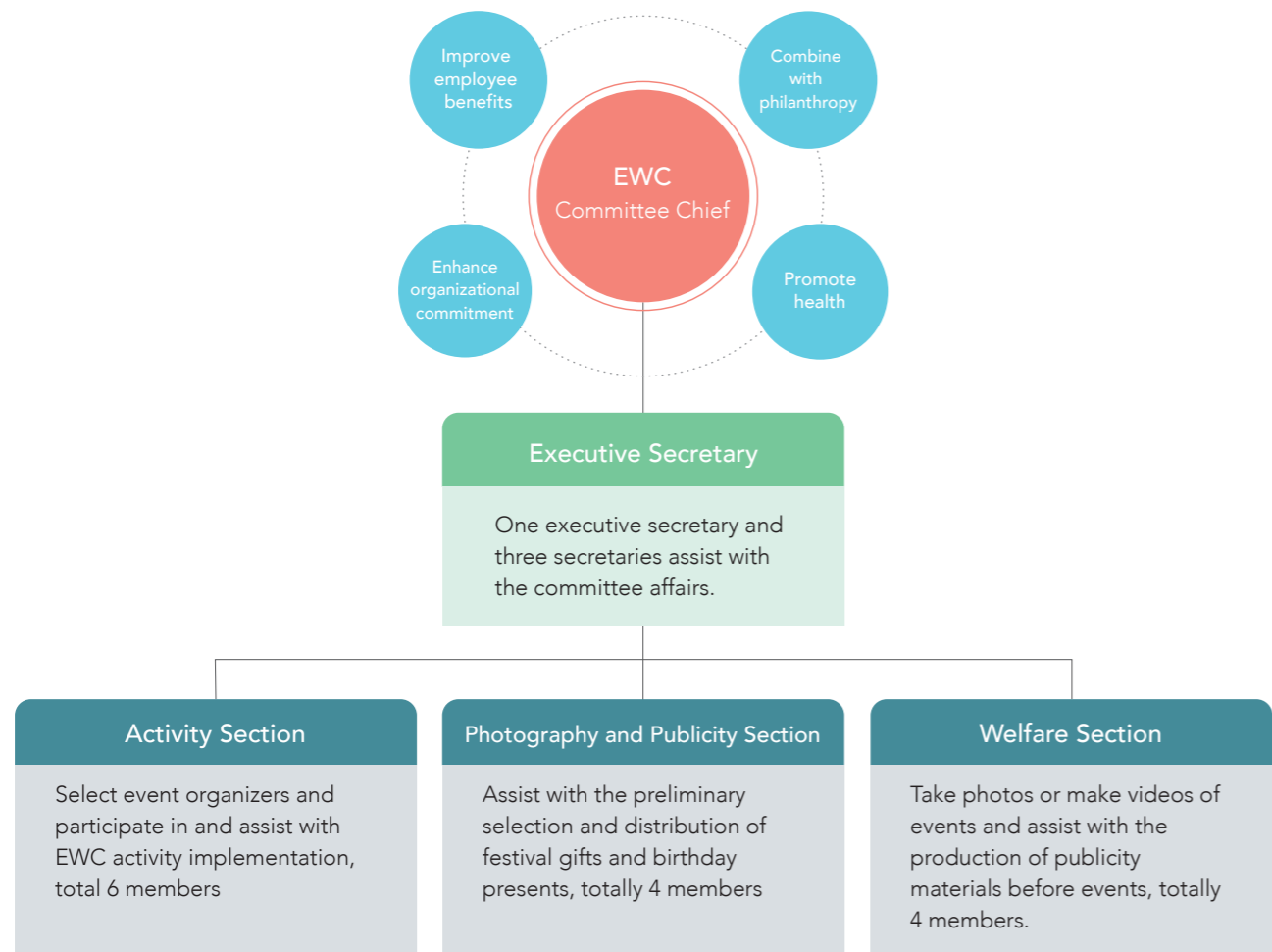
- ▶ [Labor Standards Act] Every month, we contribute 2% of the total amount of salary to the Labor Pension Reserve supervised by the Labor Pension Supervisory Committee. Currently, the balance of the Pension Reserve special account is NT\$65.36 million.
- ▶ [Labor Pension Act] Every month, we contribute 6% of the labor pension to the labor pension personal account of employees at the Bureau of Labor Insurance according to the Table of Monthly Contribution Classification of Labor Pension.
- ▶ Please refer to the financial statements for more details.

In addition to the Labor Insurance and National Health Insurance, we provide group insurance for employees. Employees can also purchase insurance for their family at their own expense to expand coverage to their family.

In addition to offering employees a comfortable, safe and humanized work environment, we care about employee health. Therefore, we organize regular health examinations for employees and organize various cultural and intellectual talks, employee travel, family day, and comprehensive clubs for employees to enjoy quality life after work.

Note: ESOP, annual performance rewards, and patent rewards are for staff only.

List of Employee Benefits of E Ink Taiwan	Wage and Bonus System	<ul style="list-style-type: none"> Well-established salary structure Employee bonus and employee stock ownership plan (ESOP) 	<ul style="list-style-type: none"> Annual performance rewards Patent rewards
	Medical Insurance and Healthcare	<ul style="list-style-type: none"> Employee group insurance Employee health examinations 	<ul style="list-style-type: none"> Travel insurance Labor Insurance and National Health Insurance Occupational accident insurance
	Thoughtful Benefit System	<ul style="list-style-type: none"> Staff discount for E Ink products Birthday/festival vouchers and gifts Massage house 	<ul style="list-style-type: none"> Allowances for birth, injuries and diseases, hospitalization, emergency assistance, marriage, and funeral. Annual travel allowance Pre-planned special leave scheme A wide variety of employee restaurants and meal subsidy



2018 Outing One Day Tour Yilan Taiwanese Beach Seine, Taichung Fruit Picking, and Sun Moon Lake Canoeing

The four EWC aims are: Improve employee benefits, enhance organizational commitment, promote health, and combine with philanthropy. In 2018, the EWC introduced the Outing One-Day Tour for the first time to link the annual organizational goals: Teamwork. There were three itineraries: Yilan Taiwanese Beach Seine, Taichung Fruit Picking, and Sun Moon Lake Canoeing, all won high acclaim from employees.



2018 Family Day Lefoo Village Theme Park: Having Fun Together

E Ink invites employees and their family to the carnival-like Family Day for the families of employees to understand more and better about E Ink's work environment and to develop a higher sense of involvement and enhance employees' organizational cohesion and loyalty in order to retain employees. The Family Day held in November 2018 at the Lefoo Village Theme Park attracted nearly 2,000 participants. The program included YOYO Family performance, team competition, E Ink Smoothie House, and a range of static recreational facilities and gourmet foods. Apart from having fun, participants of all ages could enjoy great food, and all participants were well amused on that day!



2019 Annual Party

The 2019 Annual Party was held in the form of a car race for participants to see the "power, innovativeness, and teamwork" of E Inkers.



2018 Merited teams

To promote a teamwork culture and commend team achievements and performance, during September 1-30 every year, the nomination for team merits of the year within the company begins. In addition, all events will be evaluated in terms of the five elements of "Teamwork Success Promotion": common goal, execution power, teamwork, information sharing, and self-exemplification, hoping to stimulate teamwork and shape a corporate culture. Every year, five teams will be the merited teams, each with a maximum prize of NT\$200,000. Merited teams will be commended at the Annual Party.



CSR Committee



LKO 3F Pigment Scale-up Pilot line & 1 F de-bottleneck project



Ready to go by reference design team



The strongest support on the earth's surface: The One!! Full support for comrades. ES108FC1 Product Design Team



Love Support: Father's Day Special—Factory Day & Seedling Transportation

In 2018, the Yangzhou Plant organized the Factory Day with activities including the rice seedling transportation, factory tour, cleanroom suit experience, and parent-child games. In the factory, children were exceptionally excited to try on the cleanroom suit and walk into the factory building to explore where and how their parents work. All participants joined the parent-child games enthusiastically. Parents and children gave presents to each other, presenting a perfect harmony.

Besides the factory tour, employees walked out of the plant into the "E Ink Field" and transplanted rice seedlings there to experience the nature's law of "sow in spring and reap in autumn" and the implications "each and every grain is the fruit of hard work". Two months later, employees re-visited the field where seedlings have grown into golden grains. There were also the sea of sunflowers by the road and the quacking of field ducks. Employees and their children could not wait to harvest with the sickle.



Employee activities of Yangzhou Plant



Flash Christmas Party



2018 Annual Party



Taiwan tour for decade excellent employees



Employee domestic tours



Family Day



Town Hall Meeting employee seminar

Fundraiser for emergency assistance

Every E Inker has empathy and enthusiasm to timely reach out to every member in need of assistance. In 2018, two E Inkers from plants in Taiwan and plants in Yangzhou required assistance for family reasons or personal reasons. During three timely fundraisers, we recruited a total of NT\$1,076,919 to help employees in need for them to feel the support and from E Inkers.



Yangzhou Plant: Letter of appreciation for fundraisers

Employee Clubs and Societies in Taiwan

- Academic: Photography Club, Craft Club, and Zen Club
- Service: Volunteer Service Club
- Sports: Yoga Club, Badminton Club, Highly Club, Table Tennis Club



Employees of the USA plant participated in the 2018 Tuckerman Inferno Race



Handmade soap



Aromatic Therapy DIY



Hiking Club



Hiking Club



Yoga Club



Yoga Club



Muscular Club



Muscular Club

Statistics on Parental Leave of Absence

Item	Taiwan			Yangzhou, China			USA		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
A: Total number of employees applying for parental leave of absence in 2018	5	2	7	0	0	0	2	7	9
B: Total number of employees due to return to work after taking parental leave in 2018	2	1	3	1	0	1	2	7	9
C: Total number of employees that did not return to work after parental leave in 2018	2	1	3	0	0	0	2	7	9
D: Number of employees due to return to work after taking parental leave in 2018 applying for leave	0	0	0	0	0	0	0	0	0
E: Total number of employees retained 12 months after returning to work following a period of parental leave in 2017	2	1	3	0	0	0	0	3	3
F: Total number of employees taking parental leave of absence in 2017	4	1	5	0	0	0	5	7	12
Reinstatement rate % = C / (B-D)	100%	100%	100%	0%	-	0%	100%	100%	100%
Retention rate % = E / F	50%	100%	60%	-	-	-	0%	43%	25%

1 Full-time employees in Taiwan qualified for the parental leave of absence may apply for the leave.

2 Women employees working for more than two years at Yangzhou Plant with children under one year old may apply for the leave.

5-3 Multiple Development and Growth for Employees

In hope of equipping all employees with the "accountability, teamwork, and innovation" team DNA. In 2018, we implemented the competency training for employees to combine competencies with their work. We also developed six core competencies and a complete training and education map based on the E Ink DNA and organization's vision, value, and management philosophy to equip employees with all the competencies required for realizing the core value.

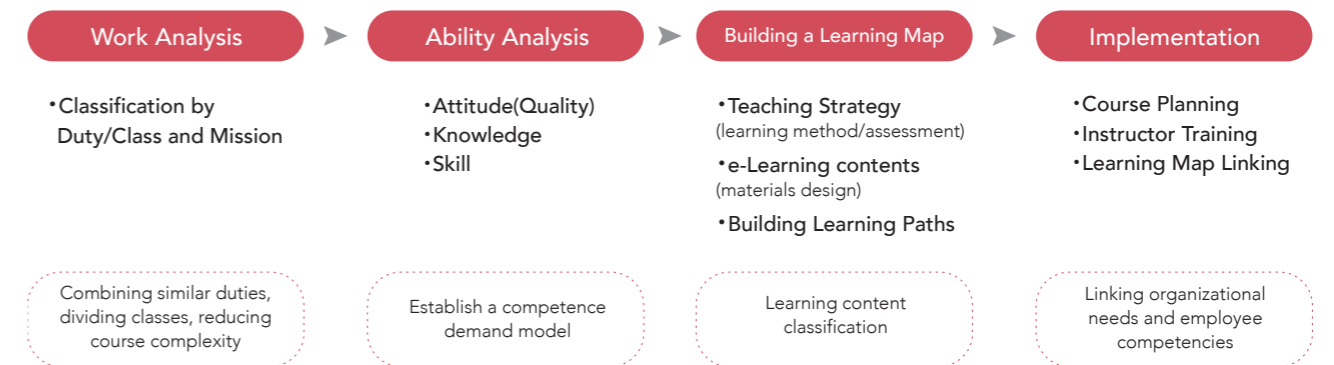
Competency	Definition	Act
Initiating action	To take actions voluntarily to accomplish the targets or missions or surpass the designated requirements. Proactive and non-passive.	<ul style="list-style-type: none"> Quick response Independent action Surpass requirements
Work standards	To set high-performance standards for oneself and others, to hold a strong sense of mission to accomplish a mission successfully. Set higher standards for oneself than others.	<ul style="list-style-type: none"> Set high standards Think thoroughly To assume responsibility To encourage others to assume responsibility
Contributing to team success	Proactively participate in team missions and contribute to team success.	<ul style="list-style-type: none"> Common goal Execution power Collaboration Information sharing Self-exemplification
Adaptability	To maintain high performance after a change in work and the environment and make effective adjustment under the new work framework, process, requirements, and culture.	<ul style="list-style-type: none"> Attempt to understand changes Hold a positive attitude toward changes Adjust own behavior to adapt to changes
Continuous learning	To proactively seek and participate in learning opportunities and apply the acquired new knowledge and skills to work.	<ul style="list-style-type: none"> Work related Appropriate method Expansion of effect Challenge the unfamiliar Application of acquired knowledge and skills
Innovation	To develop innovative and feasible solutions for work and resolve problems with different or new methods or opportunities.	<ul style="list-style-type: none"> Challenge established models Use multiple resources Expand the scope of thinking Assess different solutions Benefit work



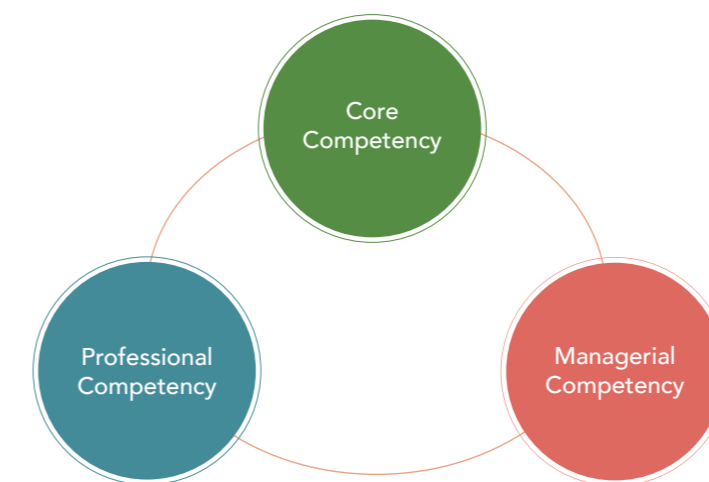
We value employee cultivation and development. Therefore, we shape an organizational learning culture by encouraging employees to engage in continuous learning and self-growth. Apart from creating a positive work atmosphere and environment, we fuse accountability with the organizational culture and emphasize, emphasize the demonstration of the "One More Ounce" spirit, and treasure the value and effort of each employee. We firmly believe that fruitful results come from the concerted efforts of all units and employees. We also believe that new employees can optimize our system, bring new ideas, make products more creative, and make the organization more energetic.

Training Courses

To systematically improve employee quality and enhance organizational competitiveness, we specifically planned the E Ink Training Road Map to establish a complete training framework, hoping to stimulate organizational creativity and thereby enhance overall competitiveness with comprehensive and abundant learning resources.



The fundamental competencies of each grade, including general employees, managers, and directors, are defined based on the organizational culture and competency. Training courses are developed and designed based on different job competencies.



Core competency

This includes the required general education courses for all employees to know their competencies and under E Ink's core spirit. In 2018, a core competency courses were given to promote team success, including 16 sessions for general employees, 3 sessions for managers, and 1 session (7 hours) for directors and above. Core competency courses were combined with the orientation training for new employees to strengthen corporate culture.

Managerial competency

Competency assessment was implemented based on different levels of management. Managerial training was designed for the averagely weak items in managerial competency, including confirmation of organizational goals, establishment of organizational development strategy, management capacity, strategic goal management, department performance management, and job implementation management.

Professional competency

Further development of talents, develop multifaceted key talents to strengthen organizational competitiveness, achieve knowledge exchange and experience sharing through departmental professional training and external resources, and provide a comprehensive and multidimensional learning environment to optimize training/education.

Knowledge management has become an important issue for enterprise competition and operational management in the 21st century. By setting organizational knowledge and experience as important assets, apart from enhancing organizational competitiveness and creating value through accumulating core competencies, we plan to implement e-learning in 2019 to provide employees with a platform for knowledge and experience sharing to achieve ubiquitous dissemination of knowledge and make learning on-demand with e-learning.

For new employees to quickly understand our corporate culture and shorten the exploration time, dissemination of the overall corporate culture and introduction to the organizational framework were the focus of the orientation training for new employees in 2018, in order to make new employees understand and identify with E Ink better and more efficiently. By communicating to them the corporate value and philosophy, we aim to help them fuse with the corporate culture more quickly; by providing them with adequate and the latest information and resources, we aim to strengthen their sense of security. In 2018, plants in Taiwan and Yangzhou organized a total of 63 sessions of orientation for 207 new employees.

E Ink University

We have established the E Ink University in the USA Plant to provide employees with multidimensional training/education activities to help them acquire new skills to improve work performance, to secure the continuous organizational growth, and retain excellent talents. At the E Ink University, apart from taking courses, employees can exchange with and learn and teach from one another. In addition, we also survey course quality and gather the feedback of employees and their supervisors with the questionnaire, in order to continuously optimize the overall effectiveness of training.

Physical Training Courses

- Instructors are either employees or experts outside of the company.
- There are over 100 courses, including technology, safety, legal regulations, and core skills.
- Over 1,000 employees have taken these courses.

e-Learning

- A wide variety of courses is offered through cooperation with the leading US e-learning service providers, such as Lynda.com.
- e-Learning courses from famous universities (e.g. Emeritus Institute of Management and Stanford Lead) are arranged.



E Ink University was also rated as the top 15th enterprise university in the USA and won the 3rd Best Employee Training Award of Massachusetts in 2017. Funding from the Massachusetts government continued in 2018.

Toastmasters:

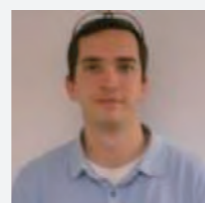
-Kameswari Upadrasta,SAP Manager

I have been part of Toastmasters about an year ,it helped me to develop my public speaking skills ,offering concrete methods of improvement and promote self –esteem. It also gives us an opportunity to give constructive evaluations to help others to improve their public speaking skills. Giving an evaluation is same as offering feedback,an important skill to learn. Internal Courses:I took internal training on "Conflict Management" – It helped me to understand the different styles of conflict management especially in organizational conflict ,to limit the negative aspects of conflict while increasing the positive aspects of conflict.I also took training on "Mindfulness" – Mindfulness session helped me to wake up my inner workings of my mental,emotional and physical processes. This helped me to be more calmer and patient than before. Personally,I feel these E Ink University programs are extremely valuable : "Thinking is contagious! Learning is addictive! Prepare for a life-altering experience.



- Chris Luth,Senior Engineer,Manufacturing

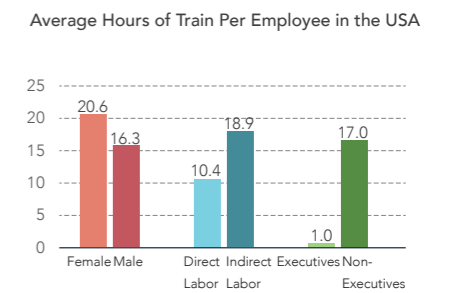
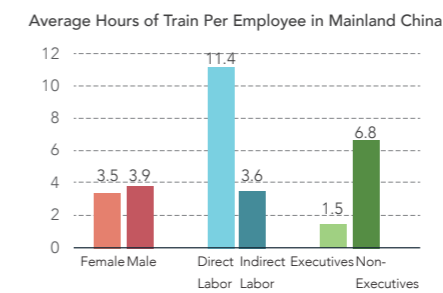
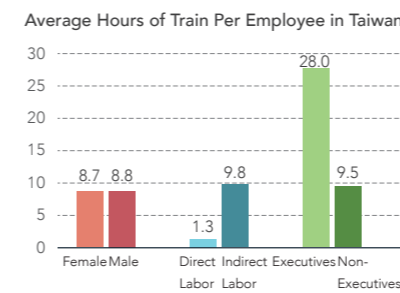
I participated in the breaking barriers,building teams training this year. I would say that I found this particular course beneficial because: The 2018 "Breaking barriers,building teams" course utilized the DISC personality assessment to show the benefits and drawbacks to each personality style when building a team. It increased our awareness of personality types and why individuals may have a different opinion about a topic or issue.



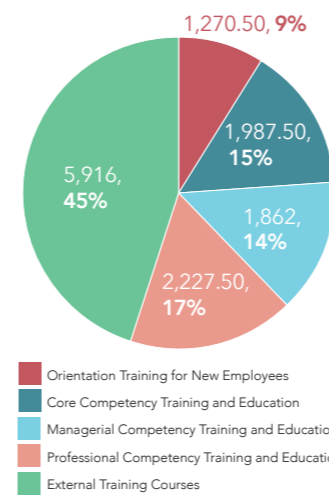
- Keith Jacobsen,Director,Supply Chain Management

E Ink strongly supported my career development by sponsoring my participation in the Standard LEAD online executive education program. I have developed new skills in business analysis,innovation,and negotiation that will help me drive successful change for E Ink.

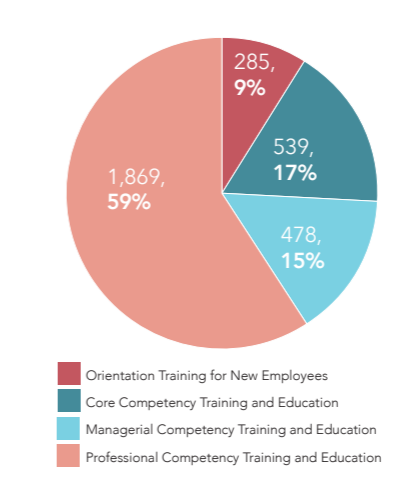
Achievements of Training and Education in 2018



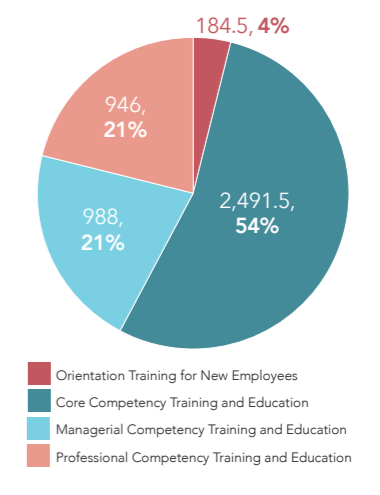
Number of Hours of Courses in Taiwan (Person/Hour)



Number of Hours of Courses in Mainland China (Person/Hour)



Number of Hours of Courses in the USA (Person/Hour)



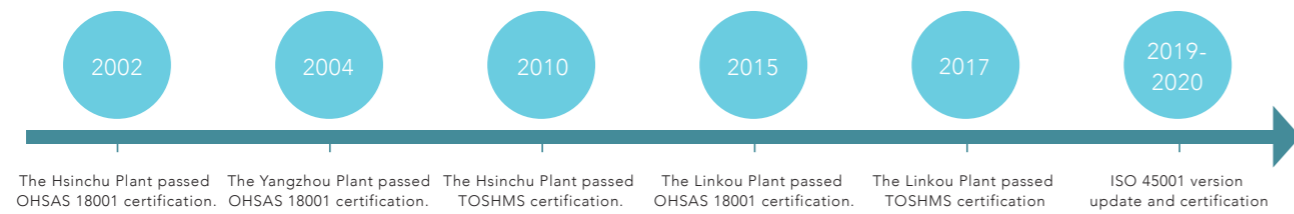
Based on the organizational goal, leaning roadmap, global trend, and product R&D status, we will continue to plan and expand the variety of courses in the future.

5-4 Maintaining a Safe and Healthy Work Environment

While employee safety and health are exceptionally important to us, we build a healthful, safe, and comfortable work environment, make continuous improvement of the work environment, and minimize the opportunity of incidence of occupational diseases. In addition, enterprises must put environment, safety, and health (ESH) first in order to pursue sustainable operations. With appropriate assessment tools, we propose management plans and implement them in everyday work to uphold the balance between ESH and corporate development in order to achieve sustainable operations.

Occupational Health and Safety Management

Since 2002, we have passed OHSAS 18001 (occupational health and safety management system) certification TOSHMS (Taiwan Occupational Safety and Health Management System, now CNS 15506) certification one after another. We plan to pass ISO 45001 version update in 2020. Every year, we perform external audits to maintain the effectiveness of our HSE system to ensure employee occupational safety and plant operations.



元太科技 OHSAS 18001證書



川奇光電 OHSAS 18001證書

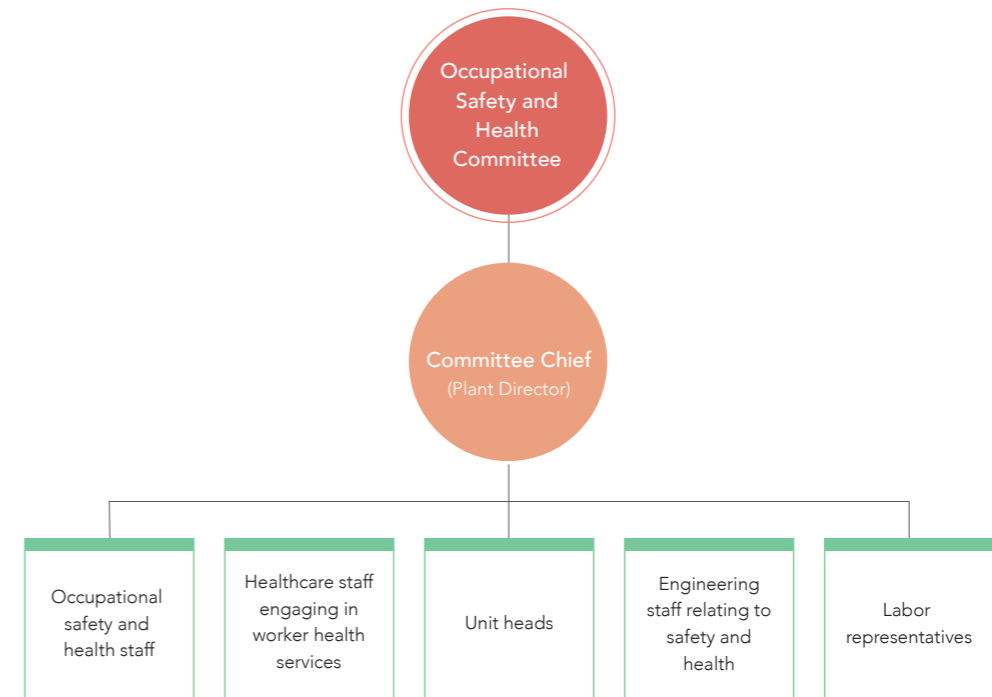


元太科技 CNS 15506 (TOSHMS)證書

Plans and Expenses for Promoting HSE Management System in Recent Years

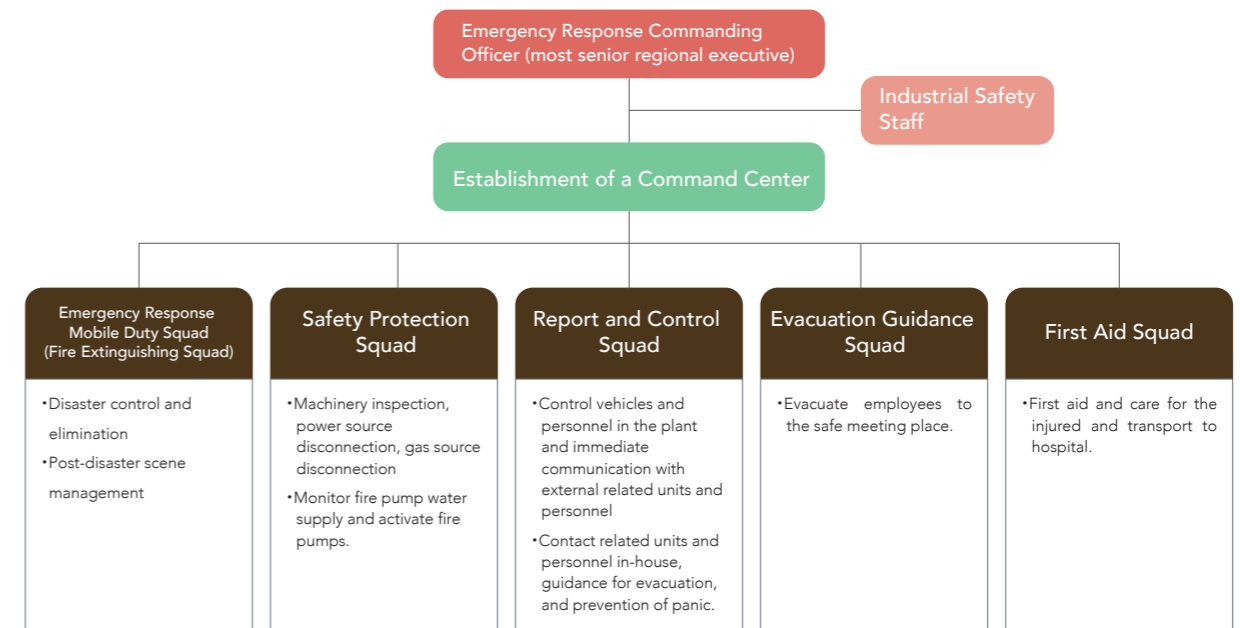
Item		2015	2016	2017	2018
Management Programs Completed in Taiwan	Number of Complaints	3	5	11	9
	Total Expense (NT\$ ten thousand)	93	243	209	230.5
Management Programs Completed by the Yangzhou Plant	Number of Complaints	33	32	32	31
	Total Expense (CNY ten thousand)	36.4	28.3	42.5	32.8

We have established an OHS committee by law in each plant, and the committee holds a meeting every quarter. The Occupational Safety and Health Committee meeting is chaired by the plant manager. Attendees include occupational safety and health staff, department heads, engineering staff relating to occupational safety and health, healthcare staff engaging in worker health services, and labor representatives. At the meeting, they discuss affairs relating to occupational safety and health, including education and training programs, plans for improving the work environment, safety and health management performance, contractor management, and health promotion. After a meeting, a report will be sent to the most senior executive of the plant, responsible units, and labor representatives. In 2018, the OSH Committee meeting of the Hsinchu Plant was attended by 15 labor representatives, accounting for 56% of all attendees, and the OSH Committee meeting of the Linkou Plant was attended by 17 labor representatives, accounting for 57% of all attendees. Through the quarterly committee meeting, we review the plant's management approach, compliance, and effectiveness, aiming to build a good work environment for employees to work away from worries.



Emergency Response Process and Exercises

We have established an emergency response process and organized all kinds of exercises every year according to the law for all employees to get familiar with the emergency report, emergency response, and emergency evacuation processes in order to reduce the significance of impacts when an accident breaks out.



Item	Taiwan	China (Yangzhou Plant)
Personnel evacuation drill	3	8
Exercise for fire emergency response and fire equipment use	6	5
Emergency response exercise for leakage of toxic gases/chemicals/gas	3	5

Statistics on Industrial Safety Incidents

Accumulated zero disaster hours
of the Hsinchu Plant (May-Dec 2018)

662,018 hours

Accumulated zero disaster hours
of the Linkou Plant (August-Dec 2018)

221,769 hours

Accumulated zero disaster hours
of the USA Plant (by the end of 2018)

240 days

Occupational Injuries Over the Years

Item	2013	2014	2015	2016	2017	2018
Taiwan	In-house	5	3	0	0	1
	Outside of plant (traffic accidents)	7	9	14	6	17
	Subtotal	12	12	14	6	18
Yangzhou, China	In-house	18	17	18	5	7
	Outside of plant (traffic accidents)	2	3	6	4	7
	Subtotal	20	20	24	9	14
USA	In-house	5	1	2	2	4
	Outside of plant (traffic accidents)*	0	0	0	0	0
	Subtotal	5	1	2	2	4

* As only in-house incidents were accounted for in the USA Plant, no data on traffic accidents outside of the plant were recorded.

2018 Occupational Injury Statistics- Official Employees

		Occupational Accidents		Working days lost	Number of occupational injuries	Injury rate	Lost day rate	Total absentee days	Absentee rate
		Number of injuries	Number of fatalities						
Taiwan	Female	6	0	7.5	6	0.65	0.67	1,019.53	884.81
	Male	6	0	45.5	6	0.65	0.67	1,191.63	1034.17
	Subtotal	12	0	53	12	1.31	1.35	2,211.16	1918.98
Yangzhou, China	Female	4	0	436	4	0.68	76.97	5,176.06	7,310.04
	Male	2	0	37	2	0.31	6.34	2,692.75	3,692.82
	Subtotal	6	0	473	6	0.48	41.14	7,868.81	5,474.87
USA	Female	0	0	0	0	0	0	N/A	N/A
	Male	1	0	0	1	0.39	0	N/A	N/A
	Subtotal	1	0	0	0	0	0	N/A	N/A
Note	Taiwan Plants: Among all twelve occupational incidents, five were in-house accident, and seven were traffic accidents occurred to employees coming to work or going home after work. Yangzhou Plant: Among all six occupational incidents, two were traffic accidents occurred to employees coming to work or going home after work and four were in-house accidents.								

Note 1: IR = (Number of Injuries / Total Actual Hours Worked) x 200,000

Note 2: LDR = (Occupational Injury Days Lost / Total Hours Scheduled) x 200,000

Note 3: AR = (Absentee Lost Days / Total Hours Scheduled) x 200,000

Note 4: Absenteeism includes sick leave, menstrual leave, personal leave, family care leave, special personal leave, annual personal sick leave, occupational sickness leave.

Note 5: 2018 ODR was 0%.

Note 6: Due to the US labor laws and regulations, data regarding absenteeism and AR of the USA plant was not disclosed.

2018 Occupational Injury Statistics: Other Workers (such as contractors and interns)



		Occupational Accidents		Number of occupational injuries	Injury rate
		Number of injuries	Number of fatalities		
Taiwan	Female	0	0	0	0
	Male	0	0	0	0
	Subtotal	0	0	0	0
Yangzhou, China	Female	0	0	0	0
	Male	1	0	1	2.77
	Subtotal	1	0	1	2.77
USA	Female	0	0	0	0
	Male	0	0	0	0
	Subtotal	0	0	0	0
Note	Yangzhou Plant: One in-house occupational accident.				

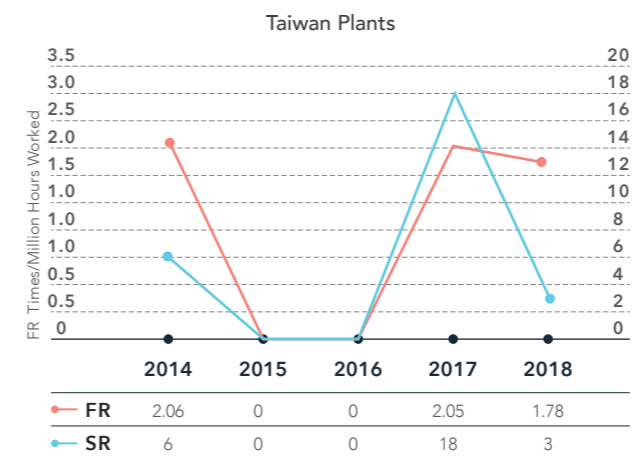
From the above table, it is clear that most accidents in Taiwan between 2012 and 2018 occurred outside of the plant. In terms of accident type, most accidents outside of the plant were traffic accidents during employee commutation, while cuts, pinches, and falls were the common in-house accidents. Traffic accidents were the main cause of off-plant occupational incidents of the Yangzhou Plant in 2018, while contusion or sprain caused by operation negligence were the main causes of in-house occupational incidents.

For traffic accidents, we have arranged traffic safety education for new employees and victim employees to raise their awareness of driving and road safety in order to reduce employee traffic accident rates. In operational negligence, we will continuously reinforce equipment safety improvement, strengthen protective features, safe operation awareness education, and on-site management to reduce the frequency and severity rates of accidents.

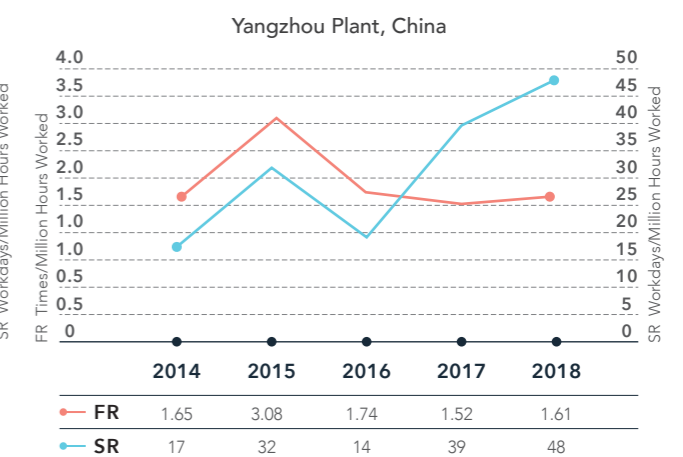
Minor Injury Incident Improvement Project of Linkou Plant

In the OHS Committee report of Q4 2018, there were up to 13 minor injuries. Although now official sick leave was required by severity, they affected the emotion and overall morale of employees. Through the concerted efforts of the Industrial Safety Department and onsite manufacturing department in the cause investigation and continual improvement, the number of minor injuries reduced to only 2 cases in the following quarter, reducing significantly by 85%.

Cause analysis	Countermeasures
Hands were cut easily during drawing and folding papers as the gloves were worn out.	<ul style="list-style-type: none"> Replace glove materials. Educate employees to immediately replace worn gloves.
Cuts to the interior side of the elbow when packing products in the box when workers rolled up their sleeves, exposing their forearms to danger without protection.	<p>Provide workers with over sleeves to help prevent cuts by boxes and cartons.</p> 
Hands were cut easily when replacing or using stainless steel stickers or sheet metal which are sharp with only clean gloves.	<p>Provide workers with cut-proof gloves to effectively prevent cuts by stainless steel stickers or sheet metal.</p> 



$$\text{Disabling Injury Frequency Rate (FR)} = \frac{\text{Number of Staff with Disabling Injury} \times 10^6}{\text{Total Man-Hours Worked}}$$



$$\text{Disabling Injury Severity Rate (SR)} = \frac{\text{Number of Total Workdays Lost} \times 10^6}{\text{Total Man-Hours Worked}}$$

In 2018, the FR and SR in Taiwan were 1.78 and 3 respectively, while they were 1.61 and 48 respectively in Yangzhou, China. We continuously arrange safety education for employees to raise their awareness of safety. The Hsinchu Plant and the Linkou Plant joined the "Zero Accident Work-Hours" challenge to express their determination to eliminate occupational injuries. Both plants reset the "Zero Accident Work-Hours" in 2018 after accidents broke out. Therefore, by 2018 the Hsinchu Plant and the Linkou Plant accumulated 662,018 and 221,769 zero accident work-hours respectively.

In work environment management, we periodically detect toxic substances in the environment by the law and provide workers with appropriate personal protective equipment (PPE) to ensure employees work in a comfortable and healthy environment.

In addition, based on the tasks involving special health hazards as specified in the "Rules for Worker Safety Protection" in Taiwan, there are two tasks with special health hazards: ionizing radiation and lead. Therefore, we arrange special physical examinations for employees before hiring them for and transferring them to such tasks. At the end of each year, we also arrange special health examinations for them. For workers requiring grade 2 or higher-

grade control or with anomalies shown in the results, we will refer them to the infirmary for regular follow-up. We also arrange one-on-one interviews with occupational medicine specialists during the in-house service for workers with health anomalies to understand the content and environment of their work, their daily life habits, and family history for occupational medicine specialists to give them and the company advice for improvement. We also arranged occupational medicine specialists to give health education for employees engaging in special work to understand more about the health risks in related work. Besides caring for workers in the high-risk group, we encourage all employees to participate in health promotion activities.



Health talks on special work giving by occupational medicine specialist.

Healthy and Happy Workplace

Badge of Accredited Healthy Workplace

To provide employees with a healthy and safe work environment, we participated in the "Healthy Workplace Accreditation" organized by the Health Promotion Administration in 2017. To realize the non-smoking workplace, enhance the self-care and improve the health knowledge of employees, reduce unhealthy risk factors and stress, actively build a healthy workplace, and provide employees with a healthy and safe work environment have always been the health promotion goal.



2018 Taiwan Plant Health Promotion Plan

We care about employee health. Continuing the healthy weight reduction activity in previous years, we organized the "eat smart, exercise happily, and healthy fitness" activity for employees in 2018. In addition to the nutrition talks, exercise talks, physical strength test, and 10,000 steps a day, we arranged team workout for employees to encourage one another. The "10,000 steps a day" activity won heated feedback from employees. During the event period, a total of 181.2kg was lost and a total of 3,333,093 steps were walked. Employees enjoyed exercise joyfully in a healthy atmosphere.



Dry Eye Syndrome (DES)

In a time when computers, communications, and consumer electronics products are everywhere in the daily life, to protect the eyes and learn the latest health knowledge, we specifically held a DES seminar for employees and invited an ophthalmologist with DES to share how to make good eye protection for employees to protect their eyes and rest appropriately after busy work.

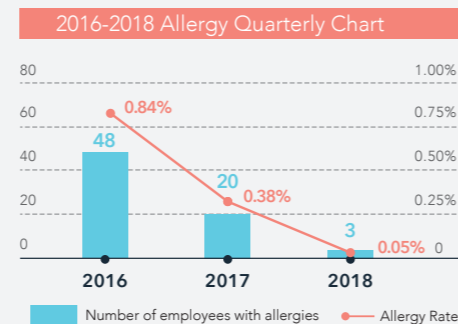
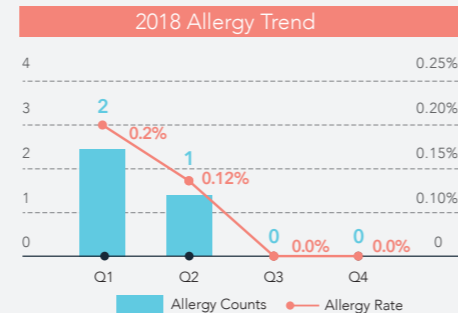
In the China region, in addition to health examinations for potential occupational hazards (chemical substances, noise, and dust), as some workers may be allergic to chemical substances related to work, we implement allergy surveillance for workers working in departments involving chemical substances, and we also take actions to relieve their allergic symptoms.

Allergy Survey Results of the Yangzhou Plant

We surveyed the allergic symptoms of employees having contact with chemical substances related to work with questionnaires, and the 2018 allergy rate was stable, and not severe case or group acquired case was reported, except for three minor allergy cases, with a rate of 0.05%, reaching $\leq 3\%$ of the KPI, and significantly lower than that of the past two years.

Major Controls:

1. Chemical implementation assessment.
2. Technology and SOP improvement to reduce direct contacts with allergens (chemicals).
3. Continuous education of the need for hand cleansing and assessment of the need for protective gloves for employees.
4. Quarterly allergy survey to understand the status of allergy.
5. Timely report of allergic symptoms and consideration of controls.
6. Consideration of job adjustment for severe and continuous allergies.
7. Weekly inspection of workshops.



Healthy 10,000 Steps: Jul 9-Sep 28, 2018

Enrollment: **263** persons

Equivalent to 2,000 km, two rounds of Taiwan

Accumulative steps walked: **3,333,093** steps

Weight Loss Jul 9-Sep 28, 2018

Enrollment: **90** persons

Accumulative weight lost: **181.2** kg

Waist reduced: **5.41%**

Body fat lost: **4.01%**

Workplace Health Care for Women

In 2018, the Linkou Plant had many expectant mothers. To build a worry-free work environment for mothers, we renovated the lactation room in the infirmary of the Linkou Plant to provide mother employees with a comfortable and highly private lactation space. In workplace maternal care, we organized the healthy pregnancy activity and planned pregnancy parking for pregnant women to feel our blessings and care for them. In addition to the environment assessment and health interview for individual pregnant employees, we arranged counseling service and care before and after delivery. For female employees in Taiwan, we arranged cancer screening and ultrasound examinations for female employees to take care of their health after busy work.



2018 Health promotion for Yangzhou Plant: Jogging Check-in, Health and LOHAS Together

To encourage employees to exercise for health, the Yangzhou Plant launched the 58-day "Gold for KG Fat Cleanup Program" and the "Super Cool Jogging Program" for employees to enjoy health and LOHAS after work in 2018.

Gold for KG Fat Cleanup Program

Through reasonable diets and appropriate exercise, we hired professional coaches to help employees clean up fat to enjoy fitness through scientific weight loss.

Participants: **59** persons
Total weight lost: **181.5** kg



Employee sharing: Xie Wei, HR Department

...60 days of hard work... Although there's still a long way to perfection, self-discipline has begun in me! Bad diet and sleep habits are gone! Health is a life-long issue. It takes time and determination to see the results. Don't ask if I can lose 10kg in 10 days, when I can show you the Apollo's belt. I can exercise 120+ minutes a day and have three times of strength training a week (dumbbells and equipment at the gym), absolute calorie control in diet, water and sleep. Can you do that?

Make fitness training a habit rather than a mission. Don't rely too much on fitness. Through diet control and aerobic exercise for 60-90 minutes a day, we can lose 7-10kg a month. Instead of weight, waist changes speak of physical changes.

The point is: Three meals a day, nothing less. Don't try two meals a day and exercise insane. Your body will fall. Trust me.

Lastly, I want to thank the "Gold for KG" fat cleanup program. It motivated my fitness intention, keeps me exercising, and develops my exercise habit. In fact, it urges me to get slimmer, better, and healthier.



Super Cool Jogging Program

In the program, participants jogged 3km a day and checked in to get the chance to win the Kindle, MI scale, and other prizes.

Participants: **95**
Duration: **58** days
Minimum length: **3km**
Winners: **40** completed the program.

Work Environment Improvement

We plan rest areas, chairs, and adequate toilets inside each plant to make the work environment more comfortable for workers to relieve tiredness in order to enhance work efficiency and thereby prevent occupational accidents.

Organic Dishes at the Employee Canteen of Yangzhou Plant

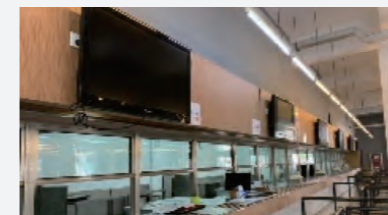
We equipped the Yangzhou Plant with an employee canteen. Besides offering employees free meals during working time, we especially require suppliers to provide organic dishes and design menus according to nutrition needs for employees to enjoy healthy and balanced diets. By doing so, we aim to take care of employees in all aspects.

To ensure that all organic dishes of the employee cafeteria are made of organic ingredients and hygienic, the Yangzhou Plant implements spot checks on ingredient examination reports, hygiene inspections (through inspectors from local food supervisory authorities), and weekly inspection of ingredients and tableware sterilization for employees to enjoy safe, delicious, hygienic and healthy foods. Rated as a grade A restaurant by the Yangzhou City Public Health Department in 2017.



Ingredients must come from processing plants passing Hazard Analysis and Critical Control Point System (HACCP) certification as specified by the Food Safety Control System.

The Yangzhou Plant has also established an organic ingredients quality control laboratory to examine the residual pesticides and microbes of each batch of incoming vegetable to ensure only qualified ingredients are warehoused. The laboratory also conducts residual detergent and grease tests on the tableware regularly to ensure employee health.



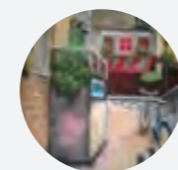
Bright and spacious dining area



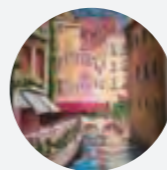
Clean and hygienic food preparation area

Yangzhou Plant Environment Optimization

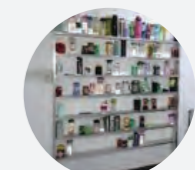
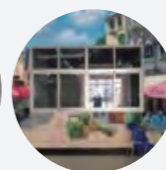
To embellish the plant environment and to make employees feel happier, the Yangzhou Plant optimized and embellished a range of common areas in 2018.



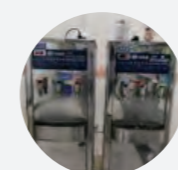
Painted employee dormitory walls



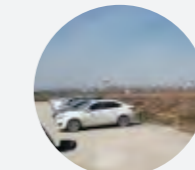
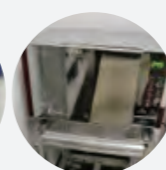
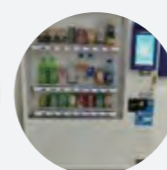
Painted ditch covers



Planned new employee rest areas



Planned new water fountains, vending machines, and microwave ovens



Planned the new driver parking



Chapter 06 Care • Toward an e-Future

6-1 Social Inclusion

Social Inclusion

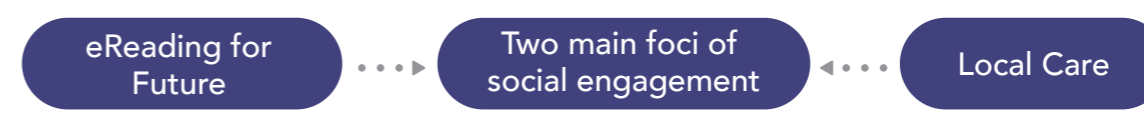
Drive of Social Inclusion	Goal of Social Inclusion	Focus of Social Inclusion
<ul style="list-style-type: none"> Linkage to SDGs Linkage to Organizational Resources Social Needs 	<ul style="list-style-type: none"> Bridging education resource gap with e-reading Care for the Vulnerable Repaying Communities 	<ul style="list-style-type: none"> eReading for the Future: Enhance e-reading literacy and bridge the education resource gap Local Care: Repay society with philanthropy actualized with corporate resources and employee participation

With the CSR vision and mission as the focus of local care, we combine our operational strategy and core business: EPD technology and application and integrate with SDGs to implement social inclusion To promote e-reading, bridge the education resource gap, care the vulnerable, and repay communities, we plan and implement social inclusion projects in Taiwan, Yangzhou, the USA, and South Korea based on the local social needs to realize CSR and build a beautiful future.

Volunteer Leave

To encourage volunteers to join volunteer services, we introduced the one-day (8 hours) paid volunteer leave in 2017 for employees to contribute to philanthropy and engage in comprehensive social services after work.

6-2 Care Together



USA

Local Care Program

Concert sponsoring, charitable donation (pre-owned clothes and toys), employee blood donation, Ride to Defeat ALS building urban farms, river cleanup.

South Korea

eReading for Future Program Local Care Program

Ambulance donation, home repair for elderly people living alone, student scholarships, and career planning talks.



China

eReading for Future Program Local Care Program

Maitian Program, Golden Rod Eco-Volunteers.

Taiwan

eReading for Future Program Local Care Program

Banana subscription as support for banana farmers.

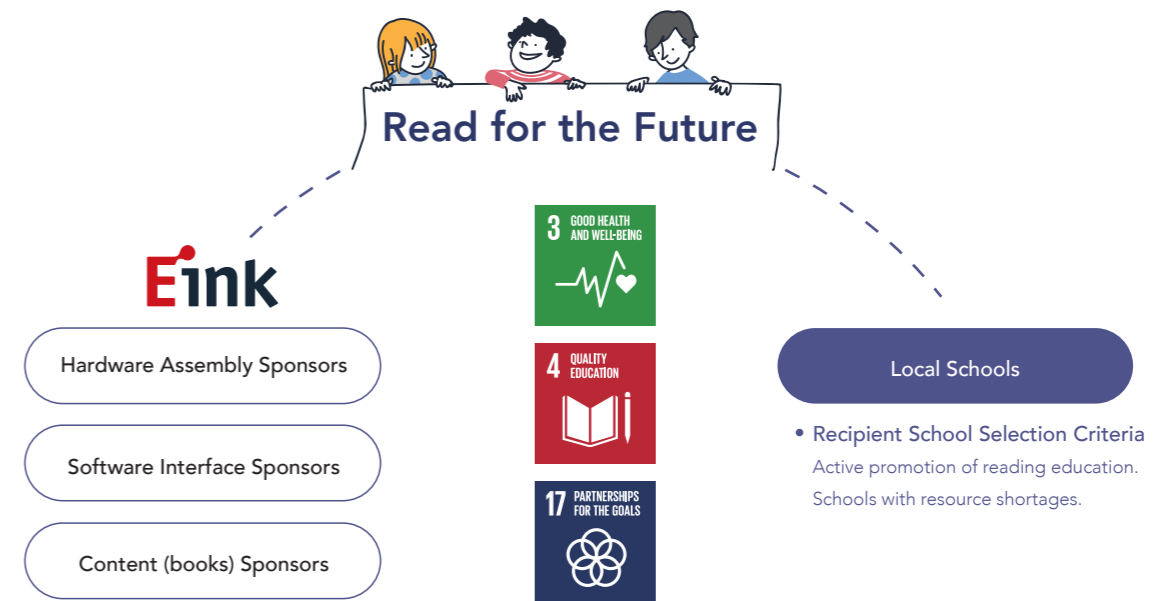
Origins	<ul style="list-style-type: none"> Reading is the origin of knowledge acquisition, and e-reading will become a natural trend as technology thrives. <ul style="list-style-type: none"> Through reading, we can acquire knowledge in different fields and improve our cognitive, linguistic, analytical, inferential and other competencies. Following the integration of digital technology and education, e-reading will become a natural trend. Despite its thriving and positive development, digital technology brings negative impacts to the growth and learning of children. <ul style="list-style-type: none"> Internet connection devices such as desktops, tablets and smartphones have become part of our daily life, and students are attracted to the diversity and spread of video, game, and real-time dynamic information. According to the data of the Ministry of Health and Welfare (MOHW)¹, the blue light emitted from LCD displays will stimulate human eyes to produce free radicals through long-time use of computers, communications and consumer electronics products at a short distance, thus causing harm to the retinal cells.
Aim	<ul style="list-style-type: none"> Contribute to society in collaboration with supply chain partners, contribute to E Ink core value, and promote positive social development by combining with the operational strategy of the ecosystem that creates value for the ePaper. Build quality e-book carriers by combining the features of the ePaper (see Chapter 3 for details) with eReaders to demonstrate the characteristics from combining digital technology and eye care and provide children with attentive and comfortable reading experience.
Goals	<ul style="list-style-type: none"> Short-term Goals <ul style="list-style-type: none"> Assist more supply chain partners in providing more resources to contribute to local students; continuously promote the e-reading and eye care features of eReaders to the public; reduce the harms from e-reading on children's eyes. Performed the analysis of social return on investment (SROI) of "eReading for the Future" program initiated in March 2018 to understand the advantages, disadvantages, and effectiveness of the program in order to make improvements to maximum its value. Medium-term Goals <ul style="list-style-type: none"> Expand the participation of our stakeholders: In addition to our employees and supply chain partners, we hope to invite customers, local communities, and eReader lovers to contribute resources within their capacity to promote eReaders and e-books to schools across Taiwan and build the eReader mobile library, in order to enrich children's life and accompany their growth with comprehensive knowledge acquired from reading. Long-term Goals <ul style="list-style-type: none"> Bring eReaders and e-books to schools in all parts of Taiwan to achieve: "one school, one e-book library, in order to implement e-reading with "eReading for the Future" in all schools. In addition, through continuously gathering resources from enterprises, society and individuals, we hope to build a self-determined philanthropy platform.

¹ 衛生福利部國民健康署：3C藍光 影響兒童視力 戶外活動遠離3C!



Mode of implementation of "eReading for the Future"

"eReading for the Future" is a philanthropic program initiated by E Ink to provide students with comfortable and no-hurting-eye reading experience with the core ePaper technology in collaboration with eReader ecosystem partners based on their expertise and product and technology advantages. Based on the location of the company and plant, we invest in resources in collaboration with local ecosystem partners to bring eReader mobile library to the campus and help students develop reading literacy, acquire knowledge, broaden their vision with e-reading resources under the "eReading for the Future" program.



Stakeholders in "eReading for the Future"

E Ink	<ul style="list-style-type: none"> Provides the EPD module, resource integration, and program implementation.
Hardware sponsors	<ul style="list-style-type: none"> Integrate the hardware system and software interface of the eReader.
Software sponsors	<ul style="list-style-type: none"> Provide the software interface required by the eReader and assist with e-book procurement and management.
Content (book) providers	<ul style="list-style-type: none"> Provide e-book licensing for philanthropy.
Local schools	<ul style="list-style-type: none"> Aggressive promotion of reading education and lack of reading resources are the two criteria for selection of schools for donation. It is hoped that the resources invested in the "eReading for the Future" program can be used effectively.



Taiwan

- Donated a total of 350 eReaders to 16 elementary schools in Nantou County. Each eReader is preloaded with 100 e-books, totally 35,000 volumes, amounting to NT\$23 million.

Yangzhou

- Donated a total of 100 eReaders to two elementary schools in Hunan Province. Each eReader is preloaded with about 500 children's reading material, with a total value of about NT\$200,000 (CNY43,136).

Taiwan

- Establishment of the eReader Library: Donated a total of 310 eReaders to 10 elementary schools in Changhua County. Each eReader is preloaded with 100 e-books, totally 31,000 volumes, amounting to NT\$32 million.

- Engraving e-Reading: Collaborated with the Nantou County Education Bureau based on three foci: reading, digitization, and teaching. Organized teaching training and reading contests at the 16 elementary schools receiving our donation in 2017 to promote e-reading.

South Korea

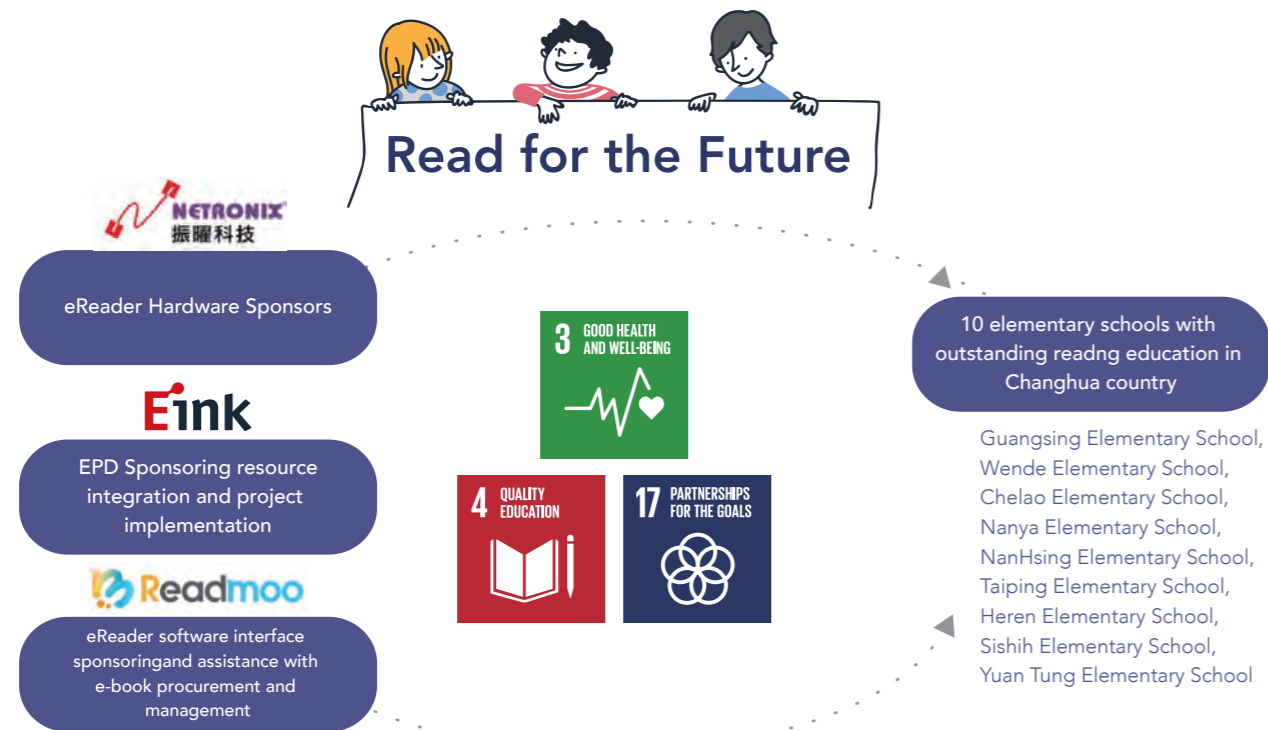
- Hydis donated 515 eReaders and 220,953 e-books to 1,209 students from 53 schools in South Korea.

Achievements of "eReading for the Future" in 2018

Through continuous investments in funds and human resources, we implemented the eReader library program in Taiwan and South Korea under the "eReading for the Future" in 2018. In Taiwan, it was the second year of the "eReading for the Future". We collaborated with Netronix Inc. and Readmoo again. Apart from continuously promoting e-reading in the 16 elementary schools receiving our donation in 2017, we expanded the "eReading for the Future" to 10 elementary schools with reading excellence in Changhua County to achieve "one school, one e-book library".

Establishment of new eReader Libraries

Toward 10 elementary schools with reading excellence in Changhua County with ecosystem partners



In 2018, we expanded the "Read for the Future" to 10 elementary schools with reading excellence in Changhua County and combined with the Changhua Reading Program. Teaming up with Netronix Inc. and Readmoo, we donated 310 eReaders and 31,000 e-books to 10 elementary schools with reading excellence in Changhua County and built 10 eReader libraries in the county. Donated eReaders and e-books up to NT\$32 million*. In addition to the eReader, we organized eReader teaching training with teachers from the 10 elementary receiving our donation as the e-reading ambassadors to share the experience in eReader utilization in their schools.



*Fund investment, volunteers, and resource donation were based on the information of E Ink, Netronix Inc. and Readmoo.
*Contribution value is based on the market price of the eReaders and e-books donated.



e-Reading promotion:

Into the world of e-reading with teachers and students

To further promote e-reading, we launched in-depth cooperation with the Department of Education, Nantou County Government in 2018. To further promote e-reading with the Department of Education, Nantou County Government, we combined the "eReading for the Future" to promote e-reading based on the "reading, digitization, and teaching" focus to plan activities benefiting e-reading promotion with teachers and students of the 16 elementary schools in Nantou County receiving our donations in 2017 under the "eReading for the Future".

Objectives and methodology	e-Reading teaching and training workshops	e-Reading student competitions
	Promote e-reading practice through exchange among the academia, industry, and schools.	Plan reading competitions with students of the 16 elementary schools as the target to promote in-depth reading based on the "reading, digitization, and teaching" focus by combining with the government's education policy.
	<ul style="list-style-type: none"> Inviting the Department of Education and Learning Technology of National Tsing Hua University and Professor Ko Hwa-Wei, Graduate Institute of Learning and Instruction, National Central University, to share the challenges in reading education in the digital environment and exchange with teacher volunteers in e-reading literacy cultivation. e-Book expert sharing : <ul style="list-style-type: none"> Instructions for eReader interface update and assistance for schools in solving problems in device utilization. Self-publication trend of e-books at home and abroad, and investigation of the use of e-book to benefit composition and logic organization training for students. 	In 2019, we organized art competitions for junior students and reading report competitions for medium/senior students in collaboration with the Nantou County government. We also held the prize presentation ceremony to encourage students to read e-books with the eReader.



Preliminary SROI assessment

To understand the effect of e-book donation to the 16 elementary schools in Nantou County, we assessed the social return on investment (SROI) based on the requirements announced by Social Value International in 2017. According to the results, the SROI is: NT\$1 investment can create SROI of NT\$2.63. In the future, we will continue to assess and trace the changes in SROI based on the status of program implementation for the reference of project planning in the future.

South Korea

Our South Korean subsidiary Hydis also actively promoted the "Read for the Future" to bring the eReader and e-books to schools in rural areas with comparatively lesser teaching resources and to low-income families, hoping to broaden the horizon of students through reading. In 2018, Hydis promoted the "Read for the Future" to schools in Gangwon and Chungcheong provinces.

In addition, Hydis donated the eReader and Korean e-books to the international schools in rural Seoul to improve the Korean proficiency of local international students and help them adapt to the schools and lifestyle in South Korea, because Korean is not the mother tongue of both international students and their parents.

In 2018, Hydis invested US\$154,015 in the "Read for the Future" program to donate a total of 515 eReaders and 220,935 e-books to 1,209 students from 53 schools, including elementary, junior high, senior high, and special schools.



Interview on recipients of e-book donation of the Yangzhou Plant

In 2018, the Yangzhou Plant interviewed the two schools in Hunan receiving the donation of 100 e-books in 2017 to understand the status of e-book use and feedback of students.



Local Care

As a member of society, we uphold the spirit: "Contributing what is taken from society to society", and continuously investing labor and funds to contribute to the construction of a quality society and the natural environment. We believe that, apart from monetary donations, philanthropy refers to promoting social welfare and helping those in need of help in society through the teamwork of employees, charities, the government, and partners and voluntary participation in CSR actions with a professional attitude.

Taiwan

E Ink and employees subscribed nearly 8,000 kg of bananas from banana farmers.

In 2018, the banana price dropped severely below cost, including the labor and care of farmers, as the yield was high. As a corporate citizen, we have been engaging in CSR practice over time, and care for local society is a topic that concerns both E Ink and E Inkers. In view of the suffering of banana farmers, we purchased nearly 8,000kg of grade A bananas at a better price through collaboration with Zhuqi Farmers' Association in Chiayi to help banana farmers sell quality bananas and make better profit. The purchase was initiated by the E Ink EWC. Apart from employee subscription, the employee cafeteria supplied bananas for one week for employees to taste quality fresh bananas from the farm and to benefit the health of employees.



Town Hall Meeting - 小確幸



Town Hall Meeting (little benefit)

To support charity and help the vulnerable, we regularly order handmade snacks from charitable groups quarterly and distribute after the town hall meetings with indirect laborers for them to feel the warmth from charitable groups when tasting these snacks.

Family Day

We never forget our support for charities while organizing Family Day to help more people with the power of love. On the event day, participants can redeem one Xiaomei ice-cream from the E Ink smoothie house with five uniform receipts on the same day. After the event, all uniform receipts will be donated to the Genesis Social Welfare Foundation to demonstrate our innovative, energetic and charitable spirit with real actions.



Yangzhou, China 2018 Maitian Project



Seeing You, Meeting Love: Little School Bag, Big Dream Fundraiser

On Chinese Valentine's Day of 2018, 20 families from the company and volunteers of the Maitian Project began selling roses enthusiastically from 15:30. All roses were sold when night fell at 19:00 to leave a memory of beauty and goodness at Core Pacific City.

Raised a total of CNY **17,088**.

All raised funds were donated to the Maitian Project to improve rural education resources.



New School Uniform

Employees and the Yangzhou Plant donated a total of CNY **65,100** to purchase **620** uniforms for three schools in Xiangxi, Hunan Province, for students in rural areas to have new and warm school uniforms.

My Love Piggy Bank

The Yangzhou Plant gathered employees and their children to participate in the saving activity for the "Little School Bag, Big Dream" of the Maitian Project.

A total of CNY **11,400** was donated.

Love Classroom

To enrich the knowledge in physical and mental health of students in rural areas, we opened the Love Classroom at three schools in Xiangxi, Hunan Province, to correctly treat sex education and learn how to assess and pay attention to physiological health. We also donated related fees amounting to CNY **4,700**.



Support "One Yellow Flower" for local ecology maintenance

The Canadian goldenrod is an exotic hazardous species with high reproductive power and fast spread, thus causing threats to local biodiversity. In 2018, the Yangzhou Plant supported the "One Yellow Flower" movement to clean up this exotic plant in areas around the plant. The Yangzhou Plant invested in CNY **26,000** and ten days to the movement.

USA

Employees of the USA Plant voluntarily formed the Ad Hoc Philanthropic Committee (AHPC) to raise funds and materials for local communities. In 2018, AHPC raised nearly NT\$200,000 of funds and materials. In addition, AHPC supports NPO charitable activities.

AHPC also launched cooperation with local healthcare centers to encourage employees to donate blood since 2009. In 2018 E Ink USA employees donated nearly 48L of blood accumulatively.

Employees of E Ink USA even participated in Ride to Defeat ALS event held by The ALS Association. All proceeds from the event will be used to help and support ALS patients.



AHPC also supported the donation program organized by The Marine TOYs for TOTs Foundation. In 2018, it donated two boxes of toys.

Volunteers also participated in the OARS river cleanup and gathered and disposed of 11 bags of garbage.



South Korea

Our South Korean subsidiary Hydis focused CSR on supporting vulnerable and marginalized groups. Through cooperation with various organizations and foundations, Hydis helps promote the sustainable development of vulnerable and marginalized groups. As an outlook to 2019 and the future, Hydis will expand the scale of the mobile library project and organize various activities to maximize the effect of CSR.

Investment of CSR resources

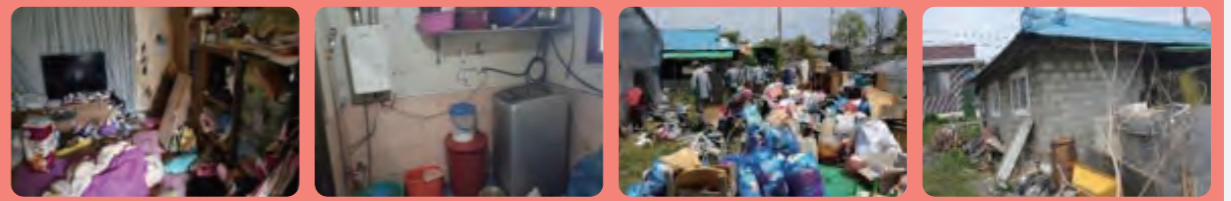
Hydis enables employees, charities, and government organizations to work closely through its CSR projects to promote social welfare and bring positive effects to society. Through the collaboration of employees, charities and the government, Hydis and employees invested a total of US\$379,469 to help over 1,877 students from 79 schools in 42 cities.

CSR activities

Home Environment Repair and Improvement Project

- Help the vulnerable: To repair and clean the homes of people with disabilities.
- Help the 5 elderly living alone: To build and modify their toilets.

Before



After

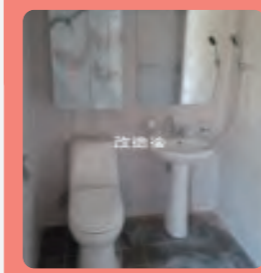


- [Mobile Hospital] Donated vehicles to hospitals to provide mobile healthcare service.

Before



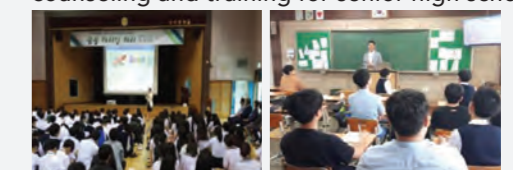
After



- [Education Support] Provided scholarships



- [Education Support] Provided career counseling and training for senior high school



Cross Reference with GRI Standards Reporting Indicators

General Disclosures		Corresponding Sections (including description of omissions)	Page
Organization profile (2016)			
102-1	Name of the organization	2-2 Global deployment	21-22
102-2	Activities, brands, products, and services	2-2 Global deployment	21-22
102-3	HQ location	2-2 Global deployment	21-22
102-4	Location of operations	2-2 Global deployment	21-22
102-5	Ownership and legal form	2-2 Global deployment	21-22
102-6	Markets served	2-2 Global deployment	21-22
102-7	The scale of the organization	2-2 Global deployment 2-4 Strategy focus and growth	21-22 30-31
102-8	Information on employees and other workers	5-1 Team overview Appendix: Social Information	72-73 110
102-9	Supply chain	4-4 Building a sustainable supply chain	67-71
102-10	Significant changes to the organization and its supply chain	There no significant change to the organization and the supply chain in the report scope of this year	-
102-11	Precautionary principle or approach	2-5 Risk Response	33-34
102-12	External initiatives	E Ink did not sign any externally developed economic, environmental and social charters, principles, or other initiatives to which we subscribe or which we endorse.	-
102-13	Membership of associations	2-4 Strategy focus and growth	32-22
Strategy (2016)			
102-14	Statement from senior decision-maker	Letter from the Chairman and CEO	04-05
102-15	Key impacts, risks, and opportunities	2-5 Risk Response	33-34
Ethics and integrity (2016)			
102-16	Values, principles, standards, and norms of behavior	2-3 Business ethics and integrity and sustainable governance	27-29
Governance (2016)			
102-18	Governance structure	1-3 Vision and strategic management 2-3 Business ethics and integrity and sustainable governance	19 24-26
Stakeholder engagement (2016)			
102-40	List of stakeholder groups	1-1 Identification of Stakeholders	12-13
102-41	Collective bargaining agreements	E Ink Taiwan does not have a labor union. All official employees are protected by the employment contract. The Yangzhou Plant in China has established a labor union and all employees are union members.	-
102-42	Identifying and selecting stakeholders	1-1 Identification of Stakeholders	12-13
102-43	Approach to stakeholder engagement	1-2 Identification and management of material topics	16-17
102-44	Key topics and concerns raised	1-2 Identification and management of material topics	13-17

General Disclosures		Corresponding Sections (including description of omissions)	Page
Reporting practice (2016)			
102-45	Entities included in the consolidated financial statements	Report Profile	01
102-46	Defining report content and topic boundaries	Report Profile 1-2 Identification and management of material topics	01 15
102-47	List of material topics	1-2 Identification and management of material topics	14-15
102-48	Restatements of information	No such thing was reported this year.	-
102-49	Changes in reporting	No such thing was reported this year.	-
102-50	Reporting period	Report Profile	01
102-51	Date of most recent report	Report Profile	01
102-52	Reporting cycle	Report Profile	01
102-53	Contact point for questions regarding the report	Report Profile	01
102-54	Claims of reporting in accordance with the GRI Standards	Report Profile	01
102-55	GRI content index	Appendix: Cross Reference with GRI Standards Reporting Indicators	104-107
102-56	External assurance	Report Profile Appendix Report Assurance Statement	01 113-115
Management Approach (2016)			
103-1	Explanation of the material topic and its Boundary	1-2 Identification and management of material topics	15
103-2	The management approach and its components	1-2 Identification and management of material topics	18
103-3	Evaluation of the management approach	1-2 Identification and management of material topics	18
Economic Aspect		Corresponding Sections (including description of omissions)	Page
GRI 201: Economic Performance (2016)			
201-1	The direct economic value generated and distributed on an accrual basis	2-4 Strategy focus and growth	30-31
201-3	Defined benefit plan obligations and other retirement plans	5-2 Building a healthy, positive, and beautiful workplace Please refer to our financial statements for details.	77-82
201-4	Financial assistance received from government	2-4 Strategy focus and growth	31
GRI 202: Market Presence (2016)			
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	5-2 Building A Positive, Beautiful and Happy Workplace	77
202-2	Proportion of senior management hired from the local community	5-1 Team overview	73
GRI 203: Indirect Economic Impacts (2016)			
203-2	Significant indirect economic impacts	6-2 Care Together	94-103
GRI 204: Procurement Practices (2016)			
204-1	Proportion of spending on local suppliers	4-4 Building a sustainable supply chain	67
GRI 205: Anti-corruption (2016)			
205-2	Communication and training about anti-corruption policies and procedures	2-3 Business ethics and integrity and sustainable governance 4-4 Building a sustainable supply chain	27-28 70
205-3	Confirmed incidents of corruption and actions taken.	No such thing was reported this year.	-
GRI 206: Anti-competitive Behavior (2016)			
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Two lawsuits involving anti-competitive behavior, anti-trust, and monopoly practices were reported. The suit filed by CopyTele has been dropped. No further legal actions have been taken in suit against Hydys.	28

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Environmental Aspect		Corresponding Sections (including description of omissions)	Page
GRI 302: Energy (2016)			
302-1	Energy consumption within the organization.	4-2 Address to climate change Appendix: Environmental Information	56-57 108-109
302-3	Energy intensity	4-2 Address to climate change	56-57
302-4	Reduction of energy consumption	4-2 Address to climate change	56-57
GRI 303: Water (2016)			
303-1	Water withdrawal by source	4-3 Resource recycling management Appendix: Environmental Information	61 109
303-3	Water recycled and reused	4-3 Resource recycling management	61
GRI 305: Emissions (2016)			
305-1	Direct (Scope 1) GHG emissions	4-2 Address to climate change Appendix: Environmental Information	58 109
305-2	Energy indirect (Scope 2) GHG emissions	4-2 Address to climate change Appendix: Environmental Information	58 109
305-4	GHG emissions intensity	4-2 Address to climate change	58-59
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	4-3 Resource recycling management	64
GRI 306: Effluents and Waste (2016)			
306-1	Water discharge by quality and destination	4-3 Resource recycling management Appendix: Environmental Information	63 109
306-2	Waste by type and disposal method	4-3 Resource recycling management	65
GRI 307: Environmental Compliance (2016)			
307-1	Non-compliance with environmental laws and regulations	2-3 Business ethics and integrity and sustainable governance	28-29
GRI 308: Supplier Environmental Assessment (2016)			
308-1	New suppliers that were screened using environmental criteria	4-4 Building a sustainable supply chain	70
Social Aspect		Corresponding Sections (including description of omissions)	Page
GRI 401: Employment (2016)			
401-1	New employee hires and employee turnover	5-1 Team overview Appendix: Social Information	73 110
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	5-2 Building A Positive, Beautiful and Happy Workplace	77-82
401-3	Parental leave	5-2 Building A Positive, Beautiful and Happy Workplace	82
GRI 403: Occupational Health and Safety (2016)			
403-1	Workers representation in formal joint management-worker health and safety committees	5-4 Maintaining a Safe and Healthy Work Environment	86
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	5-4 Maintaining a Safe and Healthy Work Environment	88-90
403-3	Workers with high incidence or high risk of diseases related to their occupation	5-4 Maintaining a Safe and Healthy Work Environment	88-90
GRI 404: Training and Education (2016)			
404-1	Average hours of training per year per employee	5-3 Multiple development and growth for employees	85
404-3	Percentage of employees receiving regular performance and career development reviews	All employed have received performance evaluation.	-
GRI 405: Diversity and Equal Opportunity (2016)			
405-2	Ratio of basic salary and remuneration of women to men	5-2 Building A Positive, Beautiful and Happy Workplace E Ink does not pay employees differently by gender.	77

Social Aspect		Corresponding Sections (including description of omissions)	Page
GRI 406: Non-discrimination (2016)			
406-1	Incidents of discrimination and corrective actions taken	No such thing was reported this year.	-
GRI 407: Freedom of Association and Collective Bargaining (2016)			
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	No such thing was reported this year.	-
GRI 408: Child Labor (2016)			
408-1	Operations and suppliers at significant risk for incidents of child labor	No such thing was reported this year.	-
GRI 409: Forced or Compulsory Labor (2016)			
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	No such thing was reported this year.	-
GRI 411: Rights of Indigenous Peoples (2016)			
411-1	Incidents of violations involving rights of indigenous peoples	No such thing was reported this year.	-
GRI 412: Human Rights Assessment (2016)			
412-2	Employee training on human rights policies or procedures	5-2 Building A Positive, Beautiful and Happy Workplace	75
GRI 414: Supplier Social Assessment (2016)			
414-1	New suppliers that were screened using social criteria	4-4 Building a sustainable supply chain	70
GRI 415: Public Policy (2016)			
415-1	Political contributions	No such thing was reported this year.	-
GRI 416: Customer Health and Safety (2016)			
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	No such thing was reported this year.	-
GRI 417: Marketing and Labeling (2016)			
417-2	Incidents of non-compliance concerning product and service information and labeling	No such thing was reported this year.	-
417-3	Incidents of non-compliance concerning marketing communications	No such thing was reported this year.	-
GRI 418: Customer Privacy (2016)			
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	No such thing was reported this year.	-
GRI 419: Socioeconomic Compliance (2016)			
419-1	Non-compliance with laws and regulations in the social and economic area	2-3 Business ethics and integrity and sustainable governance No non-compliance with laws and regulations in the social and economic area was reported this year.	28-29

Cross Reference with the Taipei Exchange Rules Governing the Preparation and Filing of Corporate Social Responsibility Reports by TPEX Listed Companies

Rules Requirements	Corresponding Sections	Page
Number of non-executive full-time employees, average wage and mean wage of non-executive full-time employees, and their differences from that of the previous year	5-2 Building A Positive, Beautiful and Happy Workplace	77

Environmental Information

Energy Consumption Statistics (raw unit)

Energy Type	Region	Original Unit				
		2014	2015	2016	2017	2018
Self-generated renewable energy (GWh)	Yangzhou, China	2.20	3.28	2.14	2.14	1.95
	Subtotal	2.20	3.28	2.14	2.14	1.95
Purchased electricity for production (GWh)	Taiwan	63.55	61.49	56.84	41.59	40.33
	USA	8.23	8.56	8.74	11.27	12.31
	Yangzhou, China	31.70	24.06	20.57	17.46	20.29
	Subtotal	103.48	94.11	86.15	70.33	72.93
Purchased electricity (dormitories) (GWh)	Taiwan	0.17	0.03	-	-	-
	Yangzhou, China	2.85	2.07	1.85	2.69	2.61
Subtotal	3.02	2.10	1.85	2.69	2.61	
Purchased steam (ton)	Yangzhou, China	11,517.00	10,578.00	7,162.00	4,977.00	6,403.62
	Subtotal	11,517.00	10,578.00	7,162.00	4,977.00	6,403.62
Natural gas (m ³)	Taiwan	961.78	441.70	-	-	-
	USA	1,448,820.61	1,376,839.87	1,454,863.37	1,331,074.61	1,351,723.06
	Yangzhou, China	84,091.00	58,470.00	51,942.00	44,194.00	41,369.00
	Subtotal	1,533,654.47	1,435,986.87	1,507,767.15	1,375,710.31	1,393,092.06
Diesel (L)	Taiwan	4,639.00	3,348.52	3,905.32	2,403.50	5,444.74
	USA	1,530.44	1,461.17	1,857.88	2,157.68	1,506.59
	Yangzhou, China	26,725.48	17,693.58	23,329.29	18,571.73	9,736.90
	Subtotal	32,894.92	22,503.27	29,092.49	23,132.91	16,688.24
Gasoline (L)	Taiwan	11,768.39	5,776.22	7,891.88	8,861.51	5,631.98
	Yangzhou, China	63,375.32	75,827.69	26,456.92	19,442.63	14,917.93
	Subtotal	75,143.71	81,603.91	34,348.80	28,304.14	20,549.91

Note: Statistics of electricity consumption is subject to the electricity bills, and the statistics of other fuels are subject to the actual consumption.

Energy consumption statistics (converted to GJ)

Energy Type	Region	Conversion to GJ				
		2014	2015	2016	2017	2018
Self-generated renewable energy electricity	Yangzhou, China	7,916.13	11,802.23	7,700.23	7,700.23	7,016.57
	Subtotal	7,916.13	11,802.23	7,700.23	7,700.23	7,016.57
Purchased electricity for production	Taiwan	228,668.15	221,255.78	204,523.96	149,655.26	145,117.02
	USA	29,599.83	30,790.64	31,441.48	40,556.96	44,284.87
	Yangzhou, China	114,064.21	86,573.65	74,015.80	62,840.46	73,008.29
	Subtotal	372,332.19	338,620.07	309,981.23	253,052.69	262,410.18
Purchased electricity (dormitories)	Taiwan	611.70	107.95	-	-	-
	Yangzhou, China	10,254.98	7,448.36	6,656.74	9,679.27	9,391.41
Subtotal	10,866.68	7,556.30	6,656.74	9,679.27	9,391.41	
Purchased steam	Yangzhou, China	32,302.77	29,669.07	20,087.91	13,959.44	17,960.81
	Subtotal	32,302.77	29,669.07	20,087.91	13,959.44	17,960.81
Natural gas	Taiwan	32.19	14.78	-	-	-
	USA	48,494.92	46,085.58	48,697.19	44,553.73	45,244.87
	Yangzhou, China	2,814.69	1,957.11	1,738.60	1,479.26	1,384.70
	Subtotal	51,334.48	48,065.35	50,467.98	46,047.78	46,629.58

Energy Type	Region	Conversion to GJ				
		2014	2015	2016	2017	2018
Diesel	Taiwan	163.04	117.69	137.25	84.47	191.36
	USA	53.79	51.35	65.30	75.83	52.95
	Yangzhou, China	939.28	621.85	819.92	652.71	342.21
	Subtotal	1,156.11	790.89	1,022.47	813.02	586.52
Gasoline	Taiwan	384.06	188.51	257.55	289.20	183.80
	Yangzhou, China	2,068.27	2,474.65	863.43	634.51	486.85
	Subtotal	2,452.33	2,663.16	1,120.98	923.71	670.65
Total		470,444.57	427,364.85	389,337.32	324,475.90	344,665.71

Note: The conversion factor is subject to the government published conversion factor for heating value.

GHG emissions statistics

Unit: tCO₂e

Region	Scope	2014	2015	2016	2017	2018
Taiwan	Scope 1	6,823.17	6,698.90	3,782.42	88.00	66.06
	Scope 2	33,199.92	32,485.65	29,988.82	22,003.92	22,331.34
	Emissions subtotal	40,023.10	39,184.55	33,771.23	22,091.92	22,397.40
USA	Scope 1	2,729.05	2,593.48	2,741.27	2,451.76	2,546.36
	Scope 2	2,106.46	2,191.21	2,237.52	2,886.23	3,151.52
	Emissions subtotal	4,835.51	4,784.69	4,978.79	5,337.99	5,697.88
Yangzhou, China	Scope 1	630.20	430.63	316.43	296.42	219.97
	Scope 2	23,607.21	26,615.03	21,853.68	18,072.15	21,065.55
	Emissions subtotal	24,237.41	27,045.66	22,170.11	18,368.56	21,285.52

1. GHG inventory data of Taiwan is the combination of the Hsinchu Plant and the Linkou Plant. The data of the Hsinchu Plant has passed the third-party verification. The Linkou Plant began third-party verification as of 2015.

2. The GHG inventory data of Yangzhou Plant has passed third-party verification.

3. The GHG inventory data of the USA plant is estimated based on energy consumption.

4. GHG emissions potential is estimated based on the value in the AR4 published by the IPCC.

5. GHG emissions are consolidated by operational control.

6. GHGs in the calculation include the following seven classes: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, and NF₃.

7. Scope 2 emissions are subject to location basis.

Water Resources Statistics

Region	(m ³)	2,014	2,015	2,016	2,017	2,018
Taiwan	Water Withdrawal	298,190.00	287,765.00	252,429.00	255,765.00	239,496.00
	Reclaimed Water Volume	409,527.00	382,106.00	304,881.00	184,942.00	171,185.00
	Reclamation Proportion	137%	133%	121%	72%	71%
	Effluent Volume	251,718.00	232,506.00	210,307.00	193,972.00	176,573.00
USA	Water Withdrawal	22,907.29	25,390.54	27,299.11	29,851.17	23,982.84
	Reclaimed Water Volume	-	-	-	-	-
	Effluent Volume	60,774.03	77,858.62	77,337.06	78,118.23	66,358.52
Yangzhou, China	Process Water Withdrawal	312,208.00	236,009.00	166,005.00	140,834.00	153,626.00
	Domestic Water Withdrawal	192,573.00	123,316.00	122,907.00	104,387.00	82,758.00
	Purchased hot water	32,591.00	23,813.00	22,846.38	22,818.32	22,402.46
	Reclaimed Water Volume	43,466.00	34,586.00	35,093.00	4,983.50	7,801.00
	Effluent Volume	No process effluent (all is considered as domestic sewage)				
	Reclamation Proportion	8.1%	9.0%	11.3%	1.9%	3.0%

1. All water consumed is tap water and subject to the water bills.

2. Taiwan: After meeting the discharge standard, wastewater of the Hsinchu Plant is discharged to the HSP sewage treatment plant for treatment. The discharge is subject to the readings on the meter. The Linkou Plant has not process wastewater.

3. China: In January 2011, the Yangzhou City Environmental Protection Bureau approved the Yangzhou Plant to shut down the sewage treatment plant and directly discharge effluents. Discharge is calculated at 80% (effluent discharge coefficient) of the withdrawal.

4. USA: Wastewater is discharged to the wastewater discharge system after treatment and the discharge is subject to the meter readings.

Social Information

Staff Formation

Employment Type	Taiwan			Yangzhou, China			USA		
	Male	Female	Subtotal	Male	Female	Subtotal	Male	Female	Subtotal
Official Employees	599	334	933	401	404	805	268	120	388
Contract Employees	2	4	6	287	110	397	9	7	16
Total	601	338	939	688	514	1,202	277	127	404
Employment Type	Male	Female	Subtotal	Male	Female	Subtotal	Male	Female	Subtotal
Executives	127	24	151	21	2	23	115	38	153
Non-Executives	472	310	782	380	402	782	153	82	235
Total Number of Official Employees	599	334	933	401	404	805	268	120	388

Number of New Official Employees

Region	Gender		Age				Total	%
	Female	Male	30 and under	31-40	41-50	51 and over		
Taiwan	30	107	51	58	28	0	137	15%
Yangzhou, China	27	70	16	5	2	27	97	12%
USA	15	24	16	10	5	8	39	10%
Total	72	201	83	73	35	35	273	11%
%	3%	8%	6%	3%	2%	0%	11%	-

Number of Separating New Official Employees

Region	Gender		Age				Total	%
	Female	Male	30 and under	31-40	41-50	51 and over		
Taiwan	3	10	4	8	1	0	13	1%
Yangzhou, China	9	31	30	7	3	0	40	5%
Total	12	41	34	15	4	0	53	3%
%	1%	2%	2%	1%	0%	0%	3%	-

Number of Separating Official Employees

Region	Gender		Age				Total	%
	Female	Male	30 and under	31-40	41-50	51 and over		
Taiwan	26	55	18	42	21	0	81	8%
Yangzhou, China	67	109	118	45	11	2	176	22%
USA	10	26	7	11	6	12	36	9%
Total	103	190	143	98	38	14	257	15%
%	5%	9%	7%	5%	2%	1%	12%	-

Achievements of Training and Education in 2018

Average Education/ Training Time (hours/person)	Taiwan						Yangzhou, China					
	Male	Female	Direct Labor	Indirect Labor	Executives	Non-Executives	Male	Female	Direct Labor	Indirect Labor	Executives	Non-Executives
Physical Training Courses	6.7	6.6	1.3	7.2	27.2	6.2	3.0	2.2	7.2	2.5	1.3	4.4
e-Learning course	0.4	0.3	0	0.5	0.2	0.5	0.1	0.6	0.9	0.4	0.0	0.9
External Training Courses	1.7	1.8	0	2.1	0.6	2.8	0.8	0.7	3.3	0.7	0.2	1.5
Average Length (hours)	8.8	8.7	1.3	9.8	28.0	9.5	3.9	3.5	11.4	3.6	1.5	6.8

Average Education/ Training Time (hours/person)	USA					
	Male	Female	Direct Labor	Indirect Labor	Executives	Non-Executives
Physical Training Courses	10.2	12.3	10.2	11.0	0.4	13.7
e-Learning course	3.7	7.1	0.0	5.5	0.5	1.6
External Training Courses	2.4	1.2	0.3	2.3	0.1	1.7
Average Length (hours)	16.3	20.6	10.4	18.9	1.0	17.0

Training & Education Course Type

Course Type	Taiwan			Yangzhou, China			USA		
	Employees trained	Course frequency	Course length (person · hours)	Employees trained	Course frequency	Course length (person · hours)	Employees trained	Course frequency	Course length (person · hours)
Orientation Training for New Employees	112	10	1,207.5	95	53	285	48	27	184.5
Core Competency Training and Education	809	22	1,987.5	225	5	539	946	36	2,491.5
Managerial Competency Training and Education	188	4	1,862	183	6	478	251	12	251
Professional Competency Training and Education	218	169	2,227.5	351	48	1,869	456	13	456
External Training Courses	986	83	5,916	-	-	-	-	-	-



Corporate Social Responsibility Report