Dairen Chemical Corporation

2022

Sustainability Report

Chang Chun Group

CONTENT

Message From the Operator

As the COVID-19 pandemic slowed down in 2022, the world has entered into a post-pandemic era where geopolitics and inflation dominate the economic trends. Along with this, climate change issues have once again surfaced at the negotiating table of major economies. For example, carbon tariffs have been legislated in the EU and the 2050 zero emissions pathway has also been announced by the National Development Council in Taiwan of the end of 2022, with relevant regulations and supporting measures for carbon fees will continue to be implemented.

The accelerated pace of international trends regarding climate change issues has formed multiple risks in the industry, challenging the resilience and sustainability of enterprises even more. Based on ethical management, DCC keeps up with the global trends and continues to develop green products and processes, invest in digitalized process applications, and improve human rights issues. DCC responds to the United Nations Sustainable Development Goals (SDGs) by combining "environmental social and governance" aspects to further expand its competitiveness and influence, contributing to society and the world.

Continuous Evolution - Refining Green Products and Low-Carbon Processes

Our expertise in chemical materials and insistence on product quality are our core competencies towards the low-carbon and sustainable future after transition. As global companies are committed to limiting global warming to 1.5°C after the Paris Agreement, DCC will also set its internal carbon-reduction targets for a sustainable future. In response to Taiwan's 2030 NDC carbon reduction target, with 2021 being the base year, DCC has set a target for carbon emissions to be reduced by 20% by 2025 compared to the base year and by 30% by 2030. The long-term reduction target (2050) is in line with the government's net zero requirements.

In regards to the needs of society and customers for a low-carbon transition, DCC continues to center on the research and development of green products and low-carbon processes. DCC is committed to mitigating climate change, reducing human hazards and environmental impact, and improving production efficiency. The green products developed by DCC are: VAE emulsion - a eco-friendly low VOC coating product, and VAE powder - used for the coating of eco-friendly building materials. This enhances the carbon reduction effect of downstream users and reduces human hazards and environmental impact.

Carbon capture and utilization (CCU) technology has always been a goal DCC aims to achieve. At DCC, CO_2 is captured for use as a raw material in the acetic acid synthesis process of the Group or for downstream customers. While the captured CO_2 is steadily enhancing, we also promote the "Co-production of Steel and Chemicals" project with the steel industry. Through cross-industry collaboration, economic values from carbon reduction benefits and regional co-prosperity will be expected.

Expanding Influence - Human Rights Awareness Incorporated Into Business Operations and Supply Chain Management

At DCC, we formulated its "Human Rights Policy" in 2022 pursuant to international human rights guidelines. The policy covers compliance with labor laws and regulations, prohibition of child labor, and anti-discrimination, fulfilling our commitment as a responsible company that protects basic human rights. Meanwhile, based on the CCPG's policy, we continue to manage the human rights and labor human rights risks of employees and suppliers to root the spirit of labor human rights in corporate operations.

Digitalized Industrial Safety Management

The number of the intelligent initiatives and awards reflect the importance DCC attach to industrial workplace safety and health maintenance. We have begun to introduce AI identification and monitoring system in recent years to assist in the intelligent inspection of PPE wearing to reduce the occurrence of workplace injuries. At the same time, we have introduced risk assessment software for process safety to minimize the occurrence of process safety incidents. We make a proactive approach to internalize the spirit of responsible chemicals in the Company, while ensuring the safety of our employees and customers through a robust chemical management system. At the same time, we raise work safety awareness among our contractors, further exerting our influence in the value chain.

Sustainable Development Goal Practices and Value Expansion

The road to sustainability for companies is full of obstacles and the fruitful achievements of DCC in recent years did not come easy. However, DCC continues to adhere to the corporate spirit of "Integrity, Customer First, and Creative Innovations" and deepen UN's SDGs to create sustainable values. At DCC, communicating with stakeholders is one of our priorities and we work closely with our stakeholders to create a sustainable future. DCC is committed to active expansion of its influence, while also emphasizing sustainable finance. In 2022, DCC had NT$100 million in green deposits to participate in sustainable actions and reduce the impact of Equator Principles on corporate finance. The efforts and dedication of the Company mentioned above have been recognized by external parties. The Company has participated in the evaluation of a third-party entity (EcoVadis) for six consecutive years, and received a Silver Award (top 14% of the industry) in 2022 for its overall ESG performance.

Through strengthening industry R&D capabilities, cultivating professionals, and constructing a complete industry chain, DCC vows to foster carbon reduction and industrial co-prosperity. We work and grow with our stakeholders in a pragmatic manner to address sustainable issues such as business operations, environmental protection, and social engagement, showcasing our determination on sustainability.

Chairman

Lin Shean-Tung

2022 DCC Highlights on Sustainability

Environmental Aspect

2050 Zero emissions
Established net-zero goals by 2050

36,385 tCO_2e/Year
2022 carbon reduction benefits from energy conservation project

118,061 tCO_2e/Year
2022 carbon capture and utilization rate

Water recycling rate at **89%**, up 2% from 2021

SOx, NOx and VOCs decreased by **8%**, **19%** and **15%**, respectively from 2021

Environmental protection input of **NT$730 million**

Social Aspect

Formaldehyde Allyl Alcohol Toxic Disaster Joint Defense Organization received the **National Deep Cultivation of National** Joint Defense Organization Award from the EPA

The overall turnover rate of DCC's factories in Taiwan was **2.6%**, better than the industry average

62 cases number of social contribution projects in Taiwan and overseas that we participated or sponsored

The average salary adjustment for employees in Taiwan has increased by **3%** each year over the past decade.

100% Reinstatement rate of those on unpaid parental leave

Governance

Sustainability-linked line of credit of **US$10 million**
DCC's 2022 planning of sustainability-linked line of credit

State-level green manufacturing design product list
1,4-Butanediol and polytetramethylene ether glycol received Chinese state-level green manufacturing design product list

117 cases Number of patents accumulated

NT$12.284 billion Combined revenue of green products

Ranking in the industry
Top **12%** Silver EcoVadis medal

100% Supplier signature rate for the New Supplier Code of Conduct

Introduction

In recent years, international trends and customers have placed more and more emphasis on ESG management. As it is DCC's commitment to pursue sustainability and center on ESG development, efforts have been made on practicing low-carbon production and valuing labor human rights. DCC also strives to create labor–management harmony, exert the influence of the value chain, deepen SDGs to create sustainable values, while emphasizing stakeholder communication and proactively responding to stakeholder concerns. By working side by side with stakeholders, we vow to create a sustainable future.

Stakeholder Communication and Material Topic Identification Sustainability Strategy

Corresponding material sustainability topic

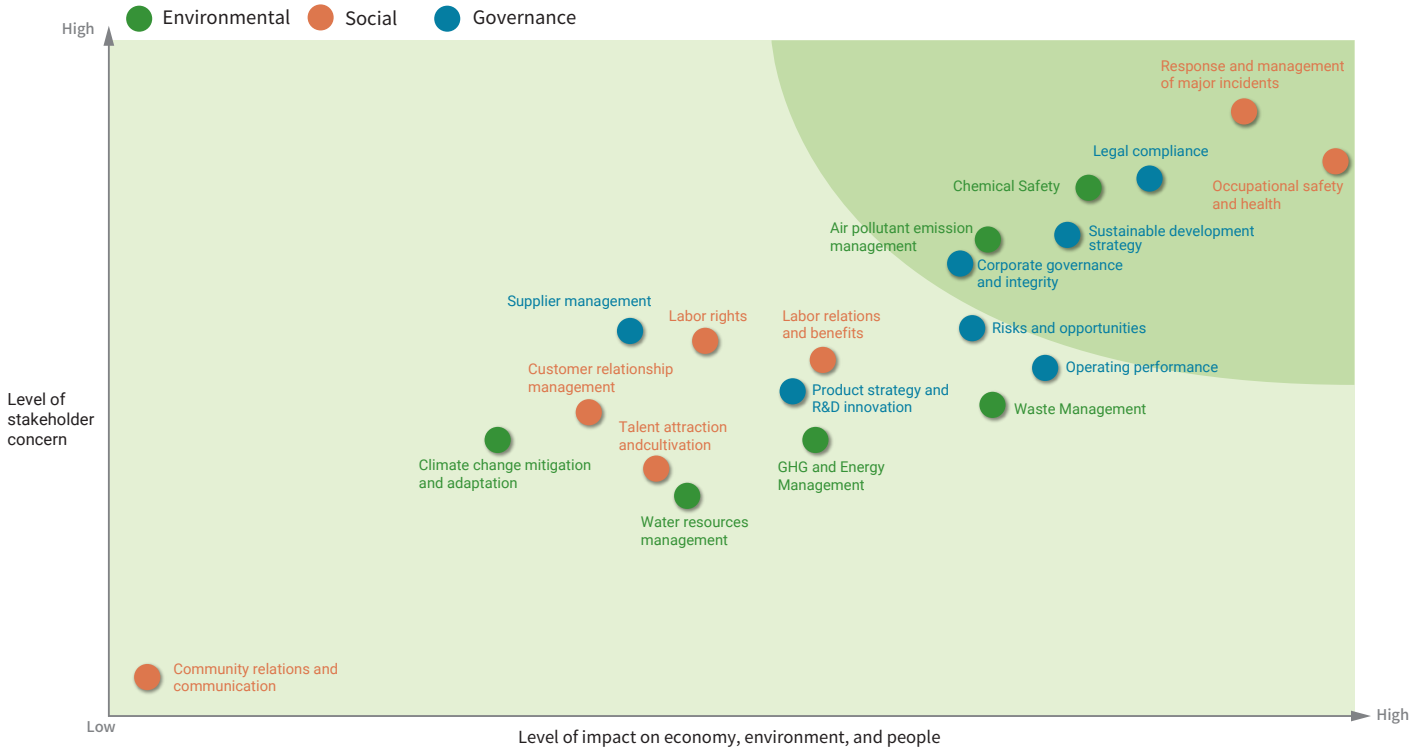
Sustainable development strategy

	KPI	Achievement for 2022	Short-term Target (2023)	Medium-term Target (2025))	Long-term Target (2030)	Corresponding SDGs
Sustainable development strategy	EcoVadis medals	Silver medal – 65 points	-	Gold medal	Platinum medal	17 PARTNERSHIPS FOR THE GOALS

Stakeholder Communication and Material Topic Identification

In order to pursue sustainability, DCC has categorized stakeholders and set up communication channels to effectively collect their information, while understanding their needs and expectation of us. The information collected on stakeholders is used as the vital reference for report information disclosure.

Step.1 Identification	Through the AA1000 SES 2015 Standards, we have successfully identified 7 categories of stakeholders of DCC. These stakeholders include employees/unions, governments/competent authorities, customers, community residents surrounding the factory, suppliers/ contractors, shareholders/joint ventures, and trade associations.	
Step.2 Collection	**20 Sustainability Topics**	DCC has compiled a total of 20 sustainability topics based on feedback from internal and external stakeholders, issues associated with our core issues in the industry we are in, ESG policies/standards, climate-related regulations, sustainability trends in the petrochemical industry, and industry benchmark companies.
Step.3 Analysis	**208 Questionnaires from Senior Managers** **1,048 Valid Questionnaires from Domestic and Overseas Stakeholders**	The Group adopts the GRI Standards and adjusts the material topic questionnaire to collect information on various topics that concern internal and external stakeholders. This information is used as an important basis for analysis of material topic matrix.
Step.4 Confirmation	**7 Material Sustainability Topics Produced**	The DCC material topic matrix has been produced as the result of the analysis of external stakeholders and senior managers, internal discussions with the ESG Committee and combined with external experts' opinions. This was then submitted to the chairman, and assessed with three presidents. Seven significant sustainability topics were decided.
Step.5 Ranking	**Top Three Significant "Positive" and "Negative" Impacts**	The GRI Standards 2021 report requires the issue of an impact assessment questionnaire and the ranking of the seven most significant impacts of sustainability topics of "level of impact on economy, environment, and people". In the end, 24 valid questionnaires were collected, confirming the top three significant "positive" and "negative" impacts.
Step.6 Disclosure	The seven significant sustainability topics were key and critical to DCC and were the priority topics for disclosure. The top three significant "positive" and "negative" impacts are deemed to be on the economy, environment, and people with actions adopted explained.	



Ranking of Top Three Impacts

Positive Impact

1. Legal compliance
2. Sustainable development strategy
3. Corporate governance and integrity

Negative Impact

1. Response and management of major incidents
2. Legal compliance
3. Occupational safety and health

7 Material Sustainability Topics

- E Chemical Safety
- E Air pollutant emission management
- S Occupational safety and health
- S Response and management of major incidents
- G Legal compliance
- G Sustainable development strategy
- G Corporate governance and integrity

13 General Topics

- E Waste Management
- E GHG and Energy Management
- E Climate change mitigation and adaptation
- S Labor relations and benefits
- S Labor rights
- S Talent attraction and cultivation
- S Customer relationship management
- S Community relations and communication
- G Risks and opportunities
- G Operating performance
- G Product strategy and R&D innovation
- G Supplier management
- G Water resources management

A total of 20 sustainability issues were compiled this time. From 2021, “product quality and safety” and “chemical management” have been merged into “chemical safety”; “environmental impact management and evaluation” and “energy management” have been merged into “GHG and energy management”; “social engagement and social care” has been changed to “community relations and communication” ; and “product transport safety” and “major incident handling and response” were merged.

After analysis of the questionnaire, seven significant sustainability topics were produced as the disclosure focus of this report. From 2021, “sustainability strategy” was newly added and its related information is disclosed in detail in this report.

Scope and Boundaries of Material Topics

Topic	GRI Standards Corresponding	The Significance of Material Topics to DCC	Stakeholders							Management Approach and Related Information	Page
			Employees/ labor unions	Suppliers/ contractors	Customers	Governments/ competent authorities	Shareholders/ joint ventures	Community residents surrounding factories	Trade associations	Corresponding Chapters	
Occupational safety and health	GRI 403	Through the effective promotion and implementation of health and safety, we strive for a working environment that enables employees to work with peace of mind, further shaping a sustainable company.	●	●		●	●	●	●	3.3.2 Health Care 3.4.2 Workplace and Process Safety	91 98
Response and management of major incidents	GRI 403	By providing our personnel with response training, incident analysis and regular emergency response drills conducted using different scenarios, employees are able to grasp response techniques and correct procedures. By taking this approach, we are able to effectively reduce the impact on society and the environment in the event of a major accident.	●	●		●	●	●		3.4.3 Response and management of major incidents	107
Legal compliance	GRI 2-27 GRI 205-3	DCC is a firm believer that, by maintaining a transparent, open and efficient corporate governance mechanism and adhering to strict compliance of applicable laws and regulations, we can lead our Group to stable and sustainable growth.	●	●	●	●	●		●	4.1.2 Risk management	121
Chemical safety	GRI 416 GRI 417	● DCC takes a responsible attitude on the subject of R&D, raw material acquisition, production, use and disposal stages of chemicals. We seek safe alternatives and reductions when using high-risk/ hazardous substances to reduce any negative impact on human health and the environment. ● With respect to production management, we create a safe and secure working environment to reduce the potential hazards to labor production.	●		●	●	●	●	●	3.4.1 Chemical Safety	95

Topic	GRI Standards Corresponding	The Significance of Material Topics to DCC	Stakeholders							Management Approach and Related Information	Page
			Employees/ labor unions	Suppliers/ contractors	Customers	Governments/ competent authorities	Shareholders/ joint ventures	Community residents surrounding factories	Trade associations	Corresponding Chapters	
Sustainable development strategy	GRI 2-13 GRI 2-14	At DCC, we place a huge emphasis on our sustainability strategy, shape an ESG culture, and root sustainability in the company through practical environmental protection actions, providing company governance transparency, the protection of employee interests and rights, the improvement of supply chain management, and the facilitation of local community development.		●	●		●		●	Introduction Sustainability Strategy	13
Air pollutant emission management	GRI 305	DCC is devoted to creating a better living environment for the public so that Taiwanese people can enjoy clean air and a blue sky. This is our greatest motivation to keep on promoting the improvement of air pollution.				●	●	●	●	2.5 Air Pollutant Emission Management	65
Corporate governance and integrity	GRI 2-9	As “integrity” is DCC’s operating philosophy, we do our utmost to improve our corporate governance structure, strengthen the functions of the Board of Directors, while attaching great importance to legal compliance. Moreover, we have formulated a regulatory identification system and a risk management mechanism and take responsibility for our stakeholders, achieving sustainable operations.		●	●	●	●			4.1.1 Corporate Governance	119

Stakeholder engagement

We value the needs and expectations of our stakeholders and have identified important stakeholders through each unit's feedback of questionnaires. In 2022, the communication channels/frequencies are listed as follows:

Stakeholders	Importance of stakeholders to DCC	Communication Channel	Communication Frequency	2022 Communication Results
Customers	"Customer first" has always been DCC's management philosophy. DCC treat all customers with integrity and trust so that all customers are served with peace of mind for sustainable growth.	● Phone, letter, fax, webpage ● Customer visits, visit customers ● Exhibition exchange ● Customer satisfaction survey ● Customer evaluation at the factory ● Set up customer complaint channel	● Occasional communication via phone, email, fax and webpage ● Occasional customer visits, technical services	● 1 customer satisfaction survey ● Took part in only 1 large-scale exhibition due to the pandemic
Suppliers/ contractors	Suppliers/contractors are a fundamental foundation for DCC to provide quality products and services; they are at the same time indispensable partners in moving towards a sustainable supply chain.	● Phone, letter, fax, webpage ● Supplier/contractor visits, and visited by them ● Supplier/contractor education and training ● Supplier evaluation, audit	● Mutual visits with suppliers/contractors from time to time ● Multiple sessions of supplier/contractor education and training per year ● Unscheduled on-site audits of suppliers depending on the importance of suppliers, their quality/delivery performance and ESG risk assessments ● Occasional phone and email communications ● Two transportation safety meetings each year	● 4,754 contractors were trained and tested ● 19 supplier on-site audits ● 218 qualified main raw material suppliers, 47 qualified transportation suppliers and 555 qualified contractors.
Community residents surrounding factories	Since its inception, DCC has upheld the spirit of "what's taken from society will be given back to society". DCC takes in the views of local communities, while at the same time maintaining robust relationships with them by conveying positive influence while working together to create a sustainable future.	● All factories provide a grievance number, mailbox, security guard booths ● Participate in/sponsor community activities ● Environment/public facility adoption and maintenance ● Invite residents to visit the factory ● Sponsored scholarships for local and neighboring universities	● Visit community residents from time to time ● Proactively sponsor local activities and public facility adoption and maintenance each year	● Participated in and sponsored 62 community activities ● 68 community residents were invited for factory visit
Shareholders/ joint ventures	The support DCC receive from shareholders/ joint ventures is the backbone to the pathway to sustainability. Meanwhile, DCC are committed to demonstrating corporate value and practicing sustainable governance through the excellent management performance.	● Board of Directors ● Management meeting and monthly report	● Hold 5 Board meetings a year ● Hold monthly management meeting	● Held 8 meetings of the Board of Directors
Employees/ labor unions	Not only is "talent" DCC's most important asset, it has also been the foundation of the sustainable operations for more than 7 decades. We strive to build a friendly and stable workplace to bring employees closer while deepening their sense of identity.	● Various types of work meetings (quality/environment/ safety/production, etc.) ● Various employee benefit meeting ● Internal meeting or seminar ● Annual performance evaluation ● Education and training ● Grievance mailbox, e-Bulletin board, questionnaire, interview	● Work meetings (weekly/monthly/quarterly/annually) ● Employee benefit meetings (quarterly) ● Various types of meetings held from time to time ● Occasional communication through grievance mailbox, e-bulletin board, questionnaire surveys, interviews, etc. ● 1 annual performance evaluation and 4 annual regular evaluations	● Provided a variety of bonuses and non-bonuses as employee benefits ● Satisfactory results were achieved at the union general meeting ● Average 65.6 hours of education and training per person
Governments/ competent authorities	DCC strictly follows law and regulations and maintains smooth communication with the government/competent authorities, jointly promoting the steady and sustainable growth of the industry.	● Promote on par with central and local competent authorities, and briefings, review, audit and meeting ● Visits by government officials ● Joint fire drills ● Official correspondence	● Regular application review ● Unscheduled site visit by authorities ● Unscheduled official correspondences and telephone communication ● Unscheduled visits by government officials ● Occasional participation in meetings (review meetings/ negotiation and discussion meetings/briefings/seminars/ forums...etc.) multiple times a year	● Periodic filing of environmental and occupational safety and health information as required by law ● Participated in 8 emergency response drills organized by appropriate government body ● Participated in 226 government unit-related meetings
Trade associations	Through various exchanges and sharing activities, we proactively interact with industry associations to keep up with the market trend and sustainability direction, jointly enhancing the competitiveness of the industry.	● Participate in meetings held by trade associations	● Participate in meetings from time to time	● Took part in a total of 9 industry associations, 2 R&D associations and academic societies, and 12 other associations ● Hold important positions in 9 public associations

DCC have established multiple communication channels to tackle different issues: in terms of internal labor and human rights issues - our employees can offer their opinions or air grievances via labor-management meetings and labor union organizations; in terms of residents living near the factory - we maintain a smooth communication channel, and provide various platforms to give feedback on environmental issues that concern them the most; and in terms of whether our operations are in compliance with the principle of integrity - we have set up internal audit control units to supervise related matters. As DCC has a straightforward reporting system, we also carry out independent investigations.

Aspect	Grievance Channel	Handling Process	Result
Legal Compliance	In an event of an unlawful conduct, departments, factories or individuals must notify the Legal Department for investigation. Reports can be made via phone, fax, letter, or email (CCPGLG@ccp.com.tw) (ccpgaudit@ccp.com.tw)	The Legal Department will carry out an investigation by itself or in conjunction with the Audit Department and a report submitted. Those involved will be corrected and disciplined to prevent recurrence.	● There were no compliance or anti-corruption-related reports or complaints in 2022.
Society and Economy	All departments are required to comply with laws and regulations. In an event of an unlawful conduct, they must take an initiative to make a report or notify the Legal Department for investigation via phone, fax, letter, or email (CCPGLG@ccp.com.tw).	For unlawful issues in the social or economic aspect, an investigation in conjunction with the Auditing Office should be conducted and a report submitted. For any unlawful conduct, compliance must be reviewed and countermeasures proposed to prevent it from recurring.	● In 2022, there were no social and economic reports or complaints
Environment	Safety and environment departments of all factories Security booths of all factories All factories provide a grievance number for complaints, mailbox	Upon the receipt of a grievance, the related unit will be notified to handle the matter, which is then submitted to the management of each company. The management of each company will then reply with the course of action as well as the subsequent result.	● There were no environment-related reports or complaints in 2022.
Corporate Human Rights and Labor Conditions	If any violation of human rights and labor conditions is discovered, departments, factories or individual employees may make a report via the labor-management platform, labor union organizations, phone, fax, correspondence or email (CCPGHR@ccpgp.com).	Factory managers or Human Resource Department of all companies should make an effort to carry out an investigation upon receiving a grievance case. If the case proves to be true, the guilty party should be held responsible in accordance with the work rules and related laws and regulators; where the grievance case is proven to be a false accusation or frame-up, the person filing the grievance should be disciplined in accordance with the work rules.	● There were no corporate human rights or labor conditions-related reports or complaints in 2022.

External Participation

DCC is dedicated to participating in trade associations, academic societies, social gatherings and other non-profit organizations, striving to enhance industrial development and progress through exchanges. As a means of putting our influence into use and improving the value of the industrial chain, the Company have assigned managers to serve in roles in which they are experts, leading industry development or participating in academic research.

I. Signing the "Responsible Care Global Charter"

Upholding the spirit of the "Caring for Society and Be Responsible and Disciplined", DCC has signed up to the commitment and statement "Responsible Care Global Charter" since 2000. At the same time, we keep on improving chemicals regarding environment, health, and safety (EHS) management systems in accordance with international standards, jointly promoting the co-prosperity and sustainable development of Taiwan's chemical industry.

II. Participation in EcoVadis Supplier Sustainability Ratings

EcoVadis is a third-party rating platform in France for sustainable development of the global supply chain, with its assessment method based on international CSR standards. We ensure the implementation of the Company's ESG to achieve the objective of sustainability development by entrusting the third-party rating platform.

DCC was awarded the silver medal in 2022

- The total score is among the top **12%** in the industry
- Ranked among the top **20%** in the industry for the aspect of environment
- Ranked among the top **12%** in the industry for the aspect of labor and human rights
- Ranked among the top **12%** in the industry for sustainable procurement

III. Trade Unions and Associations

In 2022, DCC was involved in a total of 9 industry associations, 2 R&D associations and academic societies, and 12 other associations. We also serve important roles in 9 organizations, providing the Company with greater benefits in sustainability through proactive exchanges with external entities.

Industry Associations	Explanation
Taiwan Chemical Industry Association	President Huang Fu-Chu serves as Director
Petrochemical Industry Association of Taiwan	Chairman Lin Shean-Tung serves as Director
Taiwan Synthetic Resin & Adhesives Industrial Association	Vice Chairman Huang Ho-Ching serves as Executive Director Chief
Taiwan Responsible Care Association	President Chao Huan-Chang serves as Director

R&D Associations and Academic Societies	Explanation
Catalysis Society of Taiwan	CCPG Executive Board Chairman Lin Shu-Hong serves as Honorary Member
Taiwan Institute of Chemical Engineers	President Huang Fu-Chu serves as Director

Other Associations	Explanation
Daishe Industrial Park Manufacturers Association	Factory General Manager Huang Chien-Zhong serves as the Convener
Taiwan Compatriot Investment Enterprises Association of Yangzhou	President Yeh, Shih-Wen serves as Vice President
Yangzhou Human Resources Association	Manager Wang, Hong-yan serves as Director

Nature of Membership	
Occupational Hygiene Association of Taiwan	Port of Yangzhou Association
Importers and Exporters Association of Taipei	Federation of Malaysian Manufacturers
Yunlin Hsien Industrial Association	Taipei Investor's Association in Malaysia
Kaohsiung County Industrial Association	Malaysian Petrochemical Association
Dafa Industrial Park Association	Malaysian Chamber of International Trade and Industry
Yangzhou City Energy Conservation Association	Malaysian Chemical Industry Council
Jiangsu Customs Brokers Association	Singapore Business Federation

Annual Conference organized by European Petrochemical Association (EPCA)

The EPCA organizes various petrochemical-related conferences each year to explore trade trends, geo-economics, environmental challenges, and other issues, providing a global network of opportunities. For 57 years, EPCA has gathered the wisdom of the top management in the petrochemical industry and shapes the industry's positive impact on the world. As the world's leading BDO/PTG brand, DCC proactively participates in this event to help expand business and enhance exposure.

IV. External Affirmation of DCC

CCDPJ received Class A Supplier by the Wanhua Chemical Group

Sustainability Strategy

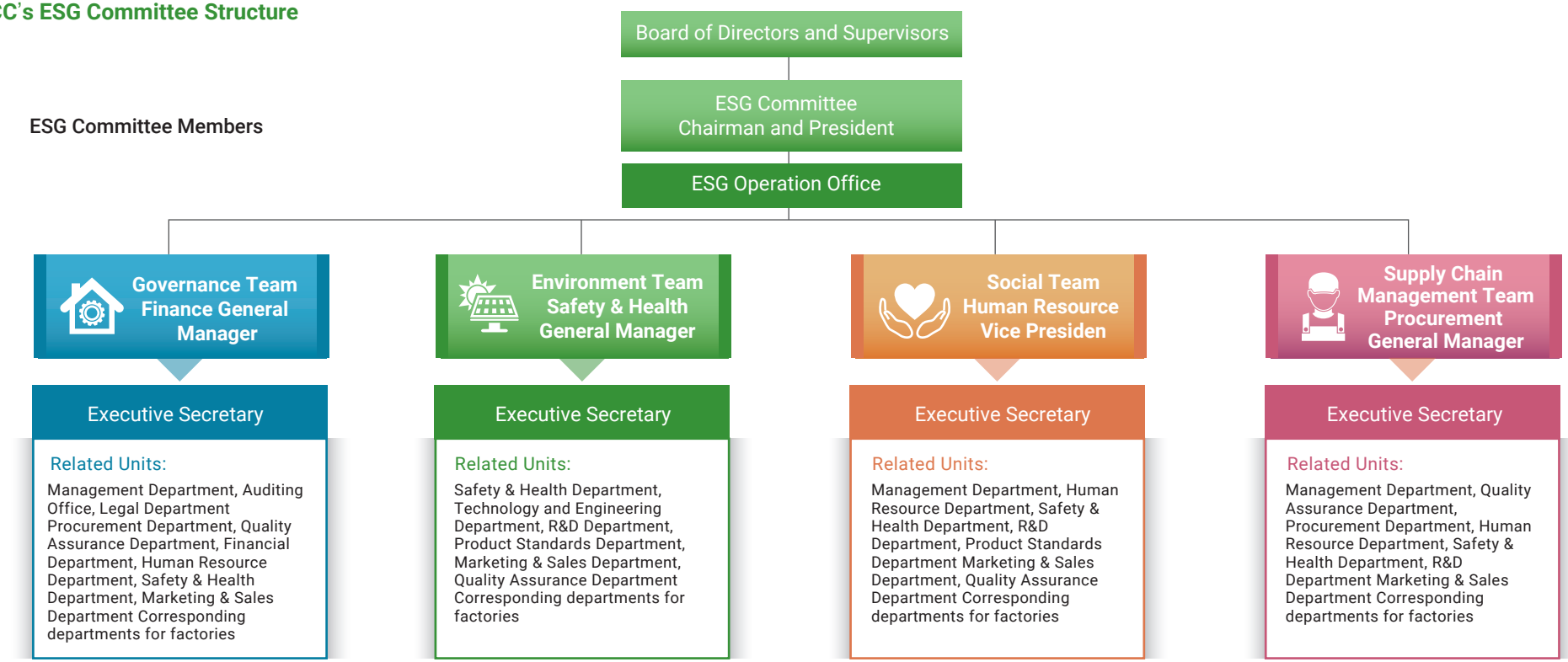
Management Approach for "Sustainable Development Strategy"

Meaning of Material Issues	● At DCC, we place a huge emphasis on our sustainability strategy, shape an ESG culture, and root sustainability in the company through practical environmental protection actions, providing company governance transparency, the protection of employee interests and rights, the improvement of supply chain management, and the facilitation of local community development. ● DCC has formed an energy conservation and carbon reduction and carbon neutrality promotion organization to proactively research carbon reduction technologies. We make every effort to move towards our net-zero goals by 2050, reducing pollution and damage to the environment while also protecting the community and ecological environment. ● We conduct an annual EcoVadis assessment and are ranked in the top 12-16% in the industry. While creating a corporate sustainability image and enhancing our EcoVadis performance, we also improve economic development and human rights awareness, as well as employee and social welfare, and quality of life in the community.
Responsibility	ESG Committee
Policy and Commitment	DCC makes every effort to align with international initiatives and standards, while also safeguarding the interests of stakeholders and turning risks into opportunities to jointly move towards sustainability, constructing a fair and just society. The Company has established an ESG policy. For more details, please see the company website.
Target	KPI: EcoVadis medals Short-term Target (2023): - Medium-term Target (2025): Gold medal Long-term Target (2030): Platinum medal
Action Plan	● We release a company ESG report each year and disclose our ESG practices and performance to our stakeholders through the report. ● We periodically hold ESG Committee and ESG Task Force meetings to review the achievement status of ESG targets, and track the effectiveness of the improvement recommendations for EcoVadis. ● We regularly convene an energy conservation and carbon reduction and carbon neutrality meeting in order to review the Company's GHG reduction targets. For more details, please see 2.3.2 Energy Conservation and Carbon Reduction Actions.
2022 Implementation Result	KPI: EcoVadis medals Achievement for 2022: Silver medal – 65 points
Communication/ Grievance Mechanism	ccpgcsr@ccp.com.tw has been set up to receive stakeholder-related information

ESG Governance and Management Organization

DCC established the ESG Committee in 2019 and in accordance with the organizational structure, the Chairman serves as the Committee Chairman while the President serves as the Committee Vice Chairman, followed by ESG Operation Office, Governance Team, Social Team, Environmental Team, and Supply Chain Management Team. The Executive Director of ESG Operation Office and all team leaders are held by heads of responsible departments and they are also members of the Committee.
ESG Operation Office provides support to each cooperating department and conducts issue integration with representatives of each factory. The results of sustainable performance and the results of communication with stakeholders are reported to the ESG Promotion Committee and stakeholders every 6 months. In 2022, two ESG Work Group meetings and one ESG Committee meeting were held.

DCC's ESG Committee Structure



In an effort to practice sustainable management, we released the DCC ESG Policy in 2022 and reexamined our short-, medium- and long-term targets. To keep up with changing times, we have set KPI and quantitative targets in line with international trends and stakeholder requirements. The responsible person of each ESG Team leads the team and supervises the implementation status and reports back to ESG Operation Office then to the chairman and presidents. For short-, medium- and long-term targets, please refer to the respective chapter.

Sustainability Strategy and Value Chain

Since establishment, DCC have always been striving for sustainability. While pursing profitable growth, we are also committed to our management philosophy and shaping a corporate culture. As it is our dedication to developing a sustainability strategy based on the core of our business, we examine each stage in the petrochemical industry value chain for DCC, from raw material procurement and manufacturing operations to green innovative applications to create sustainable value. By aligning SDGs adopted by the UN, we will make every effort to deliver results to respond to stakeholder expectations. In response to sustainable finance, DCC had NT$110 million in green deposits in 2022. The bank will use the funds for projects that pose benefits to the environment (such as renewable energy). This shows our determination to sustainability actions, hoping to create a positive impact on our credit assessment under the Equator Principles for financial institutions.

CCPG Major Product Value Chain

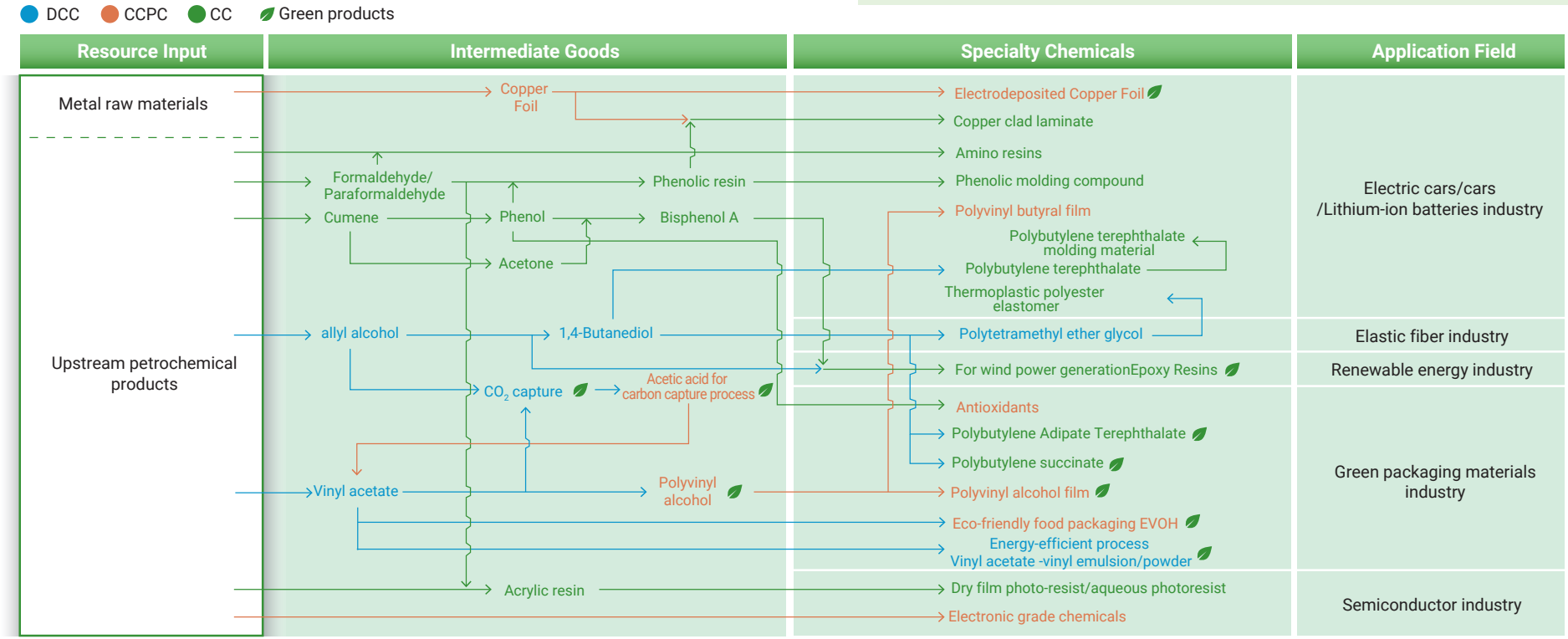
For details of green products, please see 1.2.1 Green Process and Products

2022 planning of sustainability-linked line of credit

The total amount reached US$10 million

DCC recently added environmental key performance indicators to some of its lines of credit, including fossil fuel consumption, GHG emissions, wastewater discharges, and waste treatment. The pursuit of achieving these performance indicators not only brings real improvement benefits to the environment and society, the company at the same time benefits from the reduction of the bank's credit and interest rates, creating a win-win situation for both sides.

The link between sustainability and lines of credit shows DCC's commitment to society and the environment. The Group will continue its mission to establish a quality green supply chain and proactively implement and achieve its targets, further promoting the industry's green transformation.



DCC Sustainability Value Creation

Invested by DCC in 2022

Financial
Total asset of NT$103.3 billion

Equipment
NT$307 million spent in new factory/factory expansion

Research and Development
Research and Development input of NT$220 million

Natural resources
Environmental protection input of NT$430 million

Human Resources
Total number of the Group's employees is 1,649
NT$686 million invested on safety and firefighting

Society
Enterprise volunteer participants from 7 overseas factories

CCPG Business Model

Raw material procurement

Sustainability Strategy

Supply Chain Management
Incorporate ESG management concepts in a progressive manner (conflict minerals are not used; establish a due diligence system for copper; ISO 14021 Copper Recovery Ratio verification) ; grow with suppliers

Upstream petrochemical industry | Metal raw materials | Supplier management

Operation and manufacturing stage

Environmental Aspect
- Advance production process and raw materials
- Reuse process byproducts
- Develop substitute materials for petrochemical materials

Social Aspect
- Continue and deepen industry-academia cooperation
- Maintain a good interaction with communities
- Facilitate a happy workplace within Group
- Enhance workplace safety culture

Corporate Governance
- Systematic management to implement integrity governance
  Disclose CSR performance
- Enhance communication with stakeholders

DCC
Vertical integration
CCP | CCPC

Sustainable development strategy | Product strategy and R&D innovation | Climate change mitigation | Energy saving and energy resources Circular economy
Renewable energy | Air pollutant emission management | Factory emergency response strengthening and information management | Occupational safety and health
Labor relations and benefits | Labor rights | Talent attraction and cultivation
Community involvement and community care | Legal compliance | Corporate governance and integrity

Application Field

Electric cars/cars /Lithium-ion batteries industry | Renewable energy industry | Green packaging materials industry | Elastic fiber industry | Semiconductor industry

DCC Sustainability Value Creation

SDGs	Performance for 2022
SDG3 Good health and well-being	● According to the factory-wide health management promotion program, we gradually implemented the plan to enhance the health of our colleagues. We also organized a weight management competition campaign and seminar to improve the health of employees. ● CCDPJ donated six cases of disinfectant, 500 medical masks, and a variety of daily necessities to the Panjin Social (Children) Care Home. ● DCC has developed its own VAE products that meet green industry standards. These VAE products are formaldehyde free, plasticizer free, no film forming aid required, and have low temperature flexibility and ultra-low VOC waterproof coating. ● SOx, NOx and VOCs decreased by 8%, 19% and 15%, respectively from 2021
SDG4 Quality Education	● DCCJS and the Yizheng Technician College established the “DCC Scholarship”, which was granted to six outstanding chemical students in 2022. ● DCCJS partnered up with the Yizheng Technician College to offer a chemical controller skills enhancement course designed to enhance professional skills, with a total of 22 colleagues obtaining a certificate in 2022.
SDG6 Clean Water and Sanitation	● In 2022, the rate of water recovery was 89%, up 2% from 2021. ● 172 megaliters of rainwater recovered. ● The DCC Kaohsiung Factory recovered 38.8 megaliters of wastewater in 2022 and received the “Excellent Water Conservation Performance Unit A Award” by the Water Resources Agency.
SDG7 Affordable and Clean Energy	● There were a total of 78 energy conservation and carbon reduction projects, reducing electricity use by 20,943,038 kWh/year, steam use by 85,162 metric tons/year, and carbon reduction by 36,385 metric tons of CO_2e/year. ● A total of 685,000 kWh of solar power was generated, reducing carbon emissions by 348 tons of CO_2e/year.
SDG8 Decent Work and Economic Growth	● DCC spent over NT$1.45 million performing six drill and training sessions, reinforcing its capabilities in handling and responding to major incidents. ● An AI clothing recognition system was introduced at the DCC Mailiao Factory to enhance operational safety. ● DCC participated in the Formaldehyde Chang Chun Toxic Disaster Joint Defense Organization and Allyl Alcohol Toxic Disaster Joint Defense Organization, received the National Deep Cultivation of National Joint Defense Organization Award from the EPA. ● 100% of suppliers involved in conflict minerals-related products completed the Conflict Minerals Reporting Template (CMRT) release and recovery, with results showing that their minerals are compliant. ● We operate in 9 countries across 3 continents, facilitating local employment and economic growth of developing countries
SDG9 Industry, Innovation and Infrastructure	● In 2022, NT$220 million was spent on R&D with 117 patents approved. ● CCDPJ continued to strengthen and develop its green manufacturing system and its 1,4-Butanediol (BDO) and polytetramethylene ether glycol (PTG) were awarded with the 2022 Chinese state-level green design product. VAE products from Dalian Chemical’s Jiangsu plant have passed the environmental label product certification, which has the advantages of lower toxicity and less harm compared with similar products and resource saving. ● DCCJS’s VAE products receiving the China Environmental Labeling show that they are less toxic and harmful compared to other similar products and have advantages such as saving resources.

DCC Sustainability Value Creation

SDGs	Performance for 2022
 SDG12 Responsible Consumption and Production	● Revenue from green products in 2022 was NT$12.284 billion. ● Developed VAE powder to be used in the research and development of biodegradable material PLA, which can improve the shortcomings of PLA and is often used in products such as paper cup lamination and coffee capsules. ● Gamma-Butyrolactone (GBL) was often regarded as process waste in previous years. The current process is designed to purify GBL which is sold as a product for N-Methyl-2-pyrrolidone (NMP), a raw material for lithium battery electrolytes.
 SDG13 Climate Action	● DCC revised its GHG reduction target to 30% by 2030 which will meet the government's net zero target requirement by 2050. ● Continued to promote carbon capture and utilization (CCU). In 2022, the total carbon capture and reuse reached 118,061 tCO_2e.
 SDG14 Life Below Water	● Two beach cleanups were organized, removing a total of 466kg of garbage. ● 132 employees of the DCC Mailiao Factory participated in 23 beach cleanups organized by government bodies and companies.
 SDG15 Life on Land	● Employees and family members of the DCC Dafa Factory, DCC Kaohsiung Factory and CCP Kaohsiung Factory got together to clean up the Kaohsiung Metropolitan Park. A total of 246 people participated in the tidy-up, clearing 60 kilograms of trash. ● Colleagues of DCCJS and the Sunshine Community residents planted trees in the factory. This has also enhanced the relationship between the Group and the local community.
 SDG16 Peace, Justice and Strong Institutions	● Legal compliance and human rights training completion rate 100% ● The correction rate of audit deficiencies within the trade secret system was 100%. ● We adhere to human rights standards and initiatives such as the Universal Declaration of Human Rights (UDHR) and have established the DCC Human Rights Policy.
 SDG17 Partnerships to Achieve the Goal	● Received the EcoVadis silver medal (ranked in the top 12% in the industry). ● We maintain smooth communication channels with the seven major types of stakeholders and have established multiple communication outlets to respond to different issues. ● In response to sustainable finance, DCC had NT$110 million in green deposits in 2022. The bank will use these funds for projects that create benefits to the environment (such as renewable energy). ● DCC signed a sustainability-linked line of credit in 2022 totaling US$10 million, symbolizing the Company's determination to play its role in sustainability actions.

CH 1 Responsible Production

Adhering to the principle that “the environment is our most valuable asset, it goes without saying that environmental protection is an unspoken responsibility”, DCC introduces the world’s most advanced technology and equipment, while insisting on constant refinement of manufacturing processes, promotion of industrial waste reduction, and the implementation of pollution prevention. At the same time, we research and develop all types of production technology aiming to improve waste treatment efficiency, and regard “environmental sustainability” as one of our prime objectives, making every effort to fulfill our social responsibility towards sustainable management.

	KPI	Achievement for 2022	Short-term Target (2023)	Medium-term Target (2025)	Long-term Target (2030)	Corresponding SDGs
Product strategy and R&D innovation	Green product output	186,950 metric tons	An increase of 5% using 2021 as the base year	An increase of 10% using 2021 as the base year	An increase of 15% using 2021 as the base year	3 GOOD HEALTH AND WELL-BEING; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION; 13 CLIMATE ACTION
Supplier management	Supplier Code of Conduct signature rate (Promotion of Supplier Declaration of Conflict-free Minerals: incorporated into Supplier Code of Conduct clauses)	Taiwan: Local purchase suppliers 100%; Offshore purchase suppliers 100%; Overseas Factories 100%	The signing rate maintained at 100% each year			12 RESPONSIBLE CONSUMPTION AND PRODUCTION
	Formulate a policy for conflict minerals and complete the due diligence on conflict minerals for metals used in the process.	100%	Remain 100% every year			
	Practice social responsibility risk assessment and site audits of major raw material suppliers	• Shorten the Investigation Frequency: From once every three years to once a year. • Expand Investigation Scope: If the number of suppliers is less than three after excluding internal purchases from affiliates, the assessment scope will be extended to suppliers whose purchases account for more than 3% of the total amount. • The risk assessment for 2022 was completed, with medium to high risk suppliers arranged for on-site audits.	Re-examine the supplier scope each year to shorten survey frequency			

Company	Total number of suppliers investigated	Number of medium to high risk suppliers
DCC	27	1

1.1 About DCC

Dairen Chemical Corp. (DCC) was established in 1979 as a joint venture by Chang Chun Plastics Co., Ltd. (CCP), Chang Chun Petrochemical Co., Ltd. (CCPC), and Nan Pao Resins Chemical Co., Ltd. As CCPG's third core company, DCC produces vinyl acetate monomer and works hard day and night with its management philosophy of integrity, customer first, and creative innovations.

Business Philosophy

Integrity

As "integrity" is the essence of DCC's business philosophy, we treat others with honesty and fairness to ensure that all customers are able to receive our services with peace of mind, while also gaining trust from the government, employees, suppliers and society.

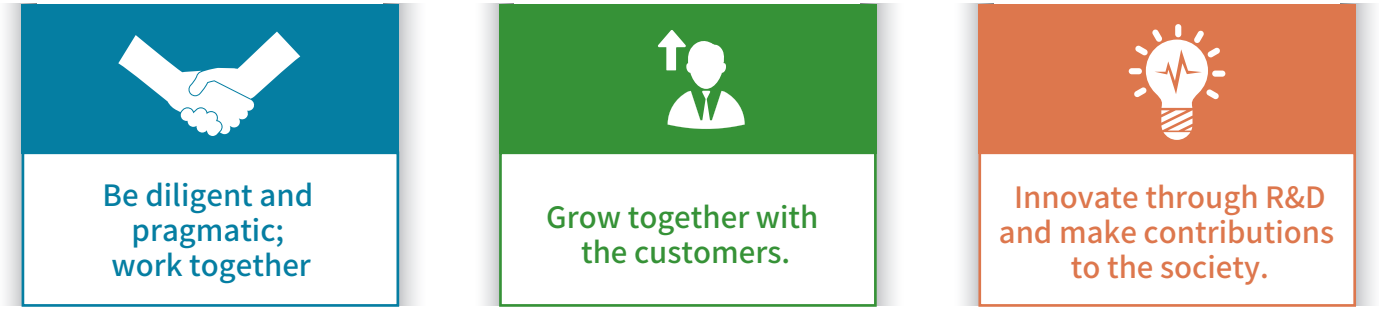
Customer First

Under the quality policy of "improve our quality, satisfy our customers", our products are well-received worldwide. DCC provides customers with more competitive product quality and prompt service.

Creative Innovations

With "innovation" being DCC's long-term dedication, we strive for production process improvement and product quality enhancement. We spare no effort when it comes to research and development, which is our driving force for continuous growth.

Operating Principles



1.1.1 Key Products and Location of Operation

DCC began its business as a producer of vinyl acetate (VAM). The Kaohsiung Factory came into operation in 1983 and was the only factory in Taiwan to produce VAM as a raw material for vinyl acetate-ethylene copolymer emulsion (VAE) and polyvinyl alcohol (PVA), and for domestic and international markets. As a means to meet customer expectations, we are committed to improving the competitiveness of our products in the market. Since establishment, we have been constantly striving for strict quality management, environmental assessment and protection, product research and development, process improvement, responsible care, and implementation of total production automation and total corporate e-commerce. At the same time, we have been diversifying uses of chemicals and establishing global production and marketing bases.

Dairen Chemical Corporation No.8-1 Huaxi Rd., Dafa Industrial Park, Daliao District 83164, Kaohsiung, Taiwan			
Company Ownership and Legal Form	Company Limited		
Taiwan Operations	Taipei Head Office, Mailiao Factory, Dafa Factory, Kaohsiung Factory		
		Factory	**Abbreviation**
Overseas Operations	Mainland China	Chang Chun Dairen Chemical (Panjin) Co., Ltd.	CCDPJ
		Dairen Chemical (Jiangsu) Co., Ltd.	DCCJS
	Southeast Asia	CCD (Singapore) Pte. Ltd.	CCDSG
		Dairen Chemical (M) Sdn. Bhd.	DCCM

At DCC, we have become a major international manufacturer thanks to the 1,4-Butanediol (BDO) and VAE emulsion products we successfully produced. We continue to invest in resources to research and develop new products and processes to enhance our corporate competitiveness so that we will keep on growing. For the main descriptions of our products, please see “Market Applications” on the website.

E-Catalog ↓

Key Products	Major Applications of Products	Major Markets
Vinyl acetate, vinyl acetate-ethylene copolymer emulsion, vinyl acetate-ethylene redispersible powder, allyl alcohol, 1,4-butanediol, and Polytetramethylene ether glycol, 2-methyl 1,3-propanediol.	Chemicals, coatings, resins, adhesives, paints, civil engineering, elastic fibers	Taiwan, China, Asia, America, Australia, Europe and Africa

DCC products are closely linked to people’ s daily lives, such as food (food packaging glue, paper straw glue), clothing (sports elastic clothing, anti-wrinkle suits, PU shoe sole material), housing (construction energy-saving, environmental water-based paint, furniture decoration), transportation (automotive precision parts), entertainment (electronic products, toy packaging materials), consumer solutions (cosmetics, face sheet masks). Our products are diverse and indispensable in modern life.

By understanding the sustainable needs of customers and consumers, we have accelerated our R&D pace and invested in innovative technology, manpower, and resources for green products, including process improvement, reduction of raw material usage and waste emissions. By doing so, not only can we increase our product competitiveness, but we at the same time bring more sustainable and environmental friendly values to the world.

DCC Product Life Map

Vinyl acetate monomer (VAM) It is the raw material of VAE emulsion and polyvinyl alcohol (PVA), and can be used in the adhesives industry and other related industries.

Food

Glue for food packaging

Vinyl acetate-ethylene copolymer emulsion (VAE emulsion):
VAE emulsion features good adhesion, and is particularly suitable for paper and plastic packaging adhesion. VAE emulsion with low VOCs and toxicity can be used for food packaging and paper straw adhesion.

Clothing

Clothing adhesive

Vinyl acetate-ethylene copolymer emulsion (VAE emulsion):
Can be used as the printing adhesive for patterns on clothes, T-shirts, and the adhesive on female underwear.

Living

Building energy conservation, environmentally friendly water-based paint Furniture decoration

vinyl acetate-ethylene redispersible powder (VAE powder):
Can improve the adhesion strength of mortar to different substrates, while enhancing the durability of mortar. Mainly used in ceramic tile adhesive mortar, interior/exterior wall surface mortar, self-leveling floor mortar, waterproof mortar, exterior wall insulation mortar, repair mortar. It can also achieve the purpose of exterior wall insulation and energy conservation in buildings.

Ethylene-vinyl acetate-vinyl chloride emulsion (EVA-VC emulsion):

Can provide a wide range of adhesion for many types of substrates, particularly for adhesion of glass fiber, metal, plastic film, porous substrates, wood, and wallpaper.

Entertainment

Adhesive for toy packaging cartons

Vinyl acetate-ethylene copolymer emulsion (VAE emulsion):
VAE emulsion can be used as an adhesive for non-polar materials, such as PE, PET, PP, and OPP, and is used as an adhesive for toy packaging cartons.

Consumer solutions

Cigarette adhesive

VAE emulsion with low VOC content:
Low-VOC, formaldehyde-free, quick-drying, wet adhesion, and is suitable for high-speed cigarette rolling, and interface and packaging adhesives.

DCC Product Life Map

Allyl Alcohol (AAL) It is a raw material of BDO, MPO and PTG

Clothing

Sports elastic clothing, wrinkle-free suits, and PU sole materials

Polytetramethylene ether glycol (PTG):
It is the primary material of polyurethanes (PU), polyester elastomer (TPEE), and can be used to make elastic fabrics: pantyhose, swimwear, sportswear, diving suits as it increases the stretchability and comfort of the fabrics, and reduce the tightness.
It can also be used for gears, soles of skates and inline skates, shoe materials, and electronic parts
2-methyl 1,3-propanediol (MPO):
It lowers the melting point and the dyeing temperature of PET fabrics, and increases the dyeability of the fabric.

Transportation

Safety glasses lenses, electronics, automotive precision parts, and home appliances

Allyl Alcohol (AAL):
Can be used to manufacture the lenses of safety glasses and DAP resin. DAP resin is suitable for injection molding products, such as electronics, automotive precision parts, and home appliances.

Entertainment

Electronic products

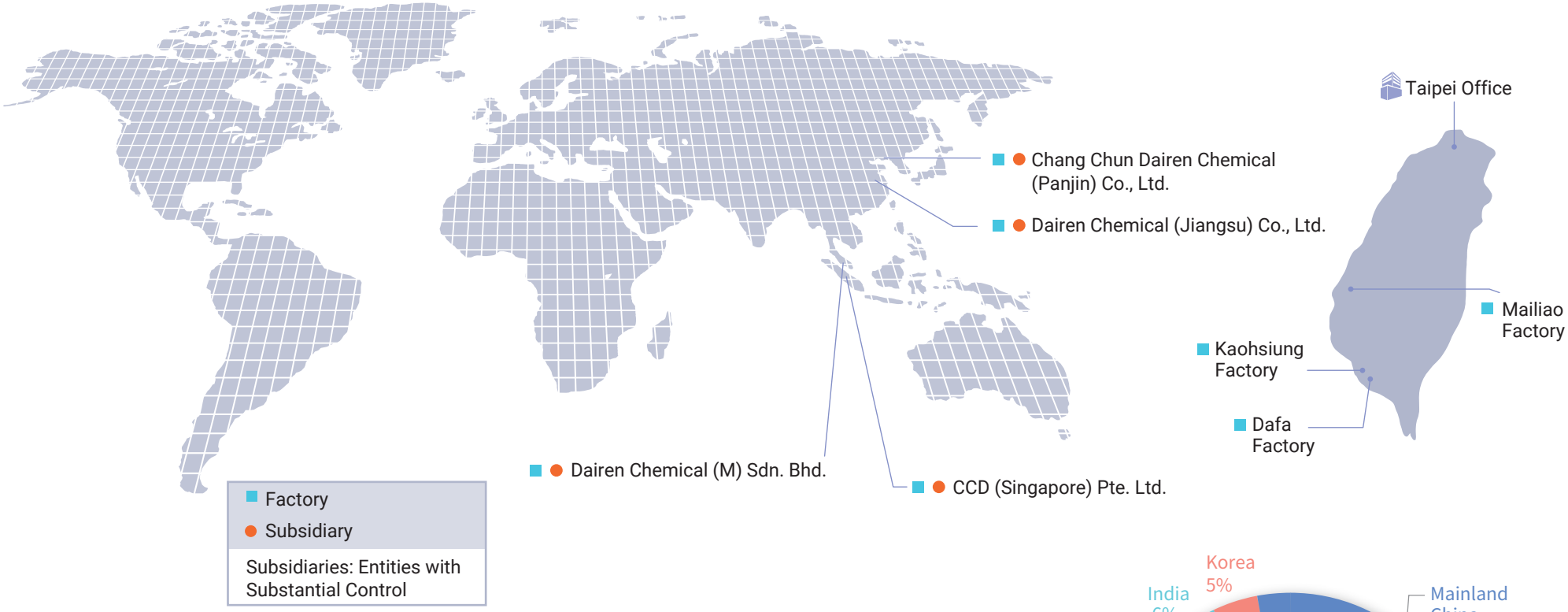
1,4-Butanediol (BDO):
It can be used to manufacture PBT engineering plastics, such as a outer shells and electronic parts and electronic products.

Consumer solutions

Face mask sheet, elastic fiber

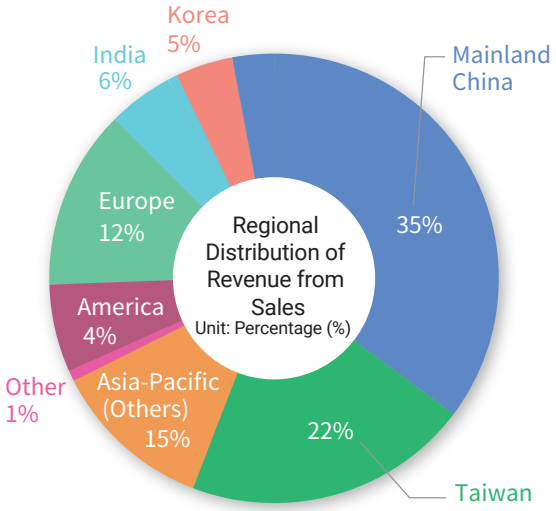
2-methyl 1,3-propanediol (MPO):
Used in the formulation of cosmetics and cleaning products.

Global Locations of Operation



1.1.2 Operating Performance

After a strong recovery in 2021, the demand for the petrochemical industry slowed down in the second half of 2022. Due to this, there was a slight decline in revenue and profitability in 2022; however, DCC continued to strengthen the development of Europe, the U.S., and emerging markets. Where there are earnings for the year as a result of the company's stable financial performance, these earnings are distributed as dividends to shareholders. The Board of Directors of the Company have proposed the motion for the 2022 earnings distribution, which is to be distributed in 2023.



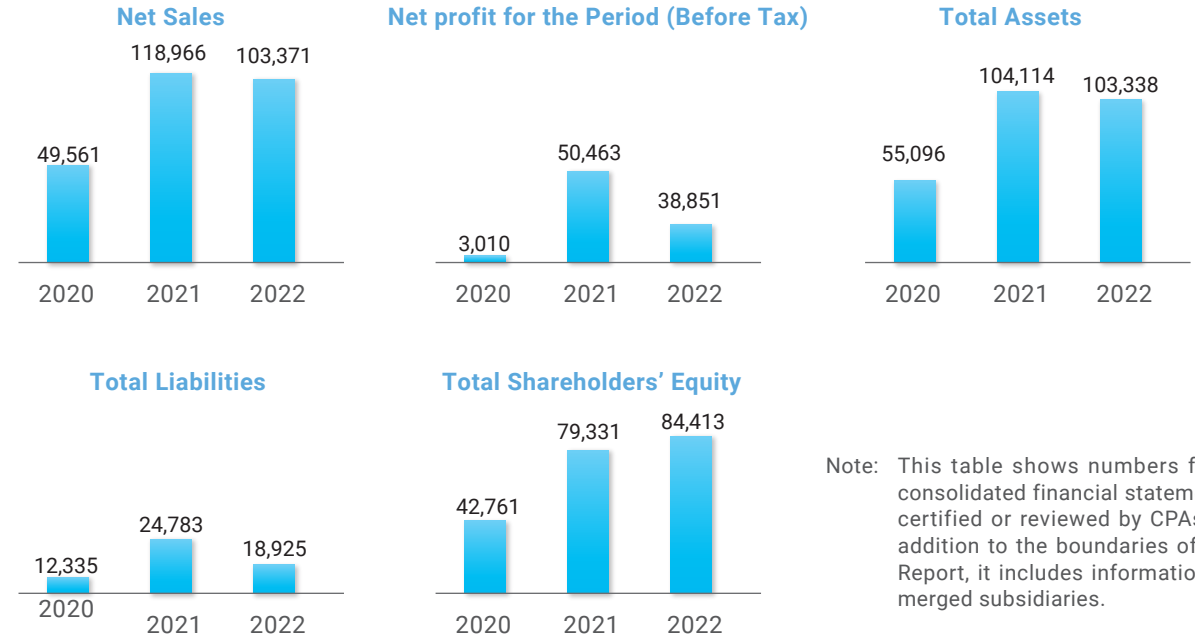
Financial performance is mainly reflected in the operating income growth and the ongoing improvement of profitability. This is the key to a company's sustainability. Thanks to the company's recent robust financial performance and the creation of long periods of stable economic values, we were given tw AA ratings from Taiwan Ratings.

Note: DCC did not conduct an independent credit rating as its ultimate parent company, Chang Chun Petrochemical Co., Ltd. (CCPC), is the main rating entity subject to credit rating.

2022 DCC Consolidated Statements ↓

2020-2022 DCC Operating Performance

Unit: NT$ million



Note: This table shows numbers from consolidated financial statements certified or reviewed by CPAs. In addition to the boundaries of the Report, it includes information of merged subsidiaries.

Multiple unfavorable factors in 2022 including the trade war between the U.S. and China, the war between Russia and Ukraine, the Fed' s interest rate hike, inflation, and China's zero-COVID policy have had a huge impact on the recession in the global economy. Additionally, the market demand of the petrochemical industry has weakened due to inflation and interest rate hikes, and the industry chain was forced to reduce production strategies and inventory adjustments in response to the suppression of demand for petrochemical products in downstream industries, leading to a decline in product prices and increase in raw material costs due to inflation, resulting in a drop in profitability of products by at least 20% compared to 2021. The company continued to keep a close eye on market changes and responded to market conditions to make timely adjustments to operations strategies. Given these efforts, the Group performed better than the industry average in terms of profitability, total assets, shareholders' returns, and operations.

1.2 Green products and Service Quality

As we insist on chemical material professionalism and product quality, DCC have been able to use our core capabilities to offer help to other industries to innovate and transform for a low-carbon sustainable future. DCC pride ourselves as a reliable material supplier. With the intention to continue to provide our customers with top-notch products, we have established a comprehensive quality policy to strengthen process controls and ensure product quality and a stable supply chain. We value the needs and opinions of all our customers and perform rigorous chemical and product management. In the meantime, we are making a proactive investment in the development of green process technology and innovative research and development of green products.

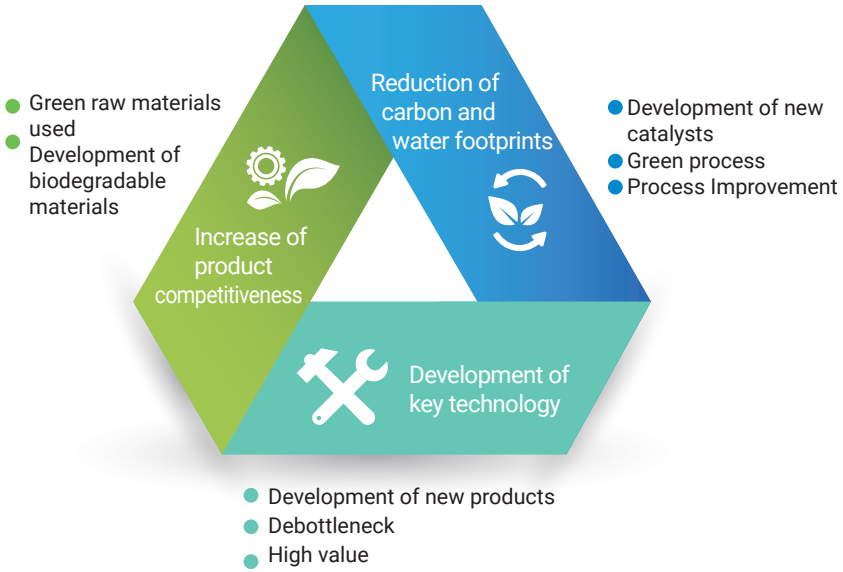
1.2.1 Green Process and Products

DCC products span plastic additives, adhesives, chemical electronic materials, medical intermediates, industrial intermediates, and resins. As the awareness in environmental and CSR issues have increased in recent years, DCC and related industries in Taiwan are faced with tough challenges in terms of environmental protection and sustainable development. Saying that, there are a number of important issues we must address.

Research and development has long been our main development focus. In 2022, the DCC's Innovation Research Division and Application Development Division were merged into an R&D Department to coordinate the Group's future R&D development direction. The R&D Department of each factory in Taiwan continues to promote innovation from the internal value chain according to their R&D duties. Meanwhile, we take into account economy, energy, environment, process safety and CSR, and proactively research and develop based on the goal of sustainable development, while implementing circular economy through energy/resource integration and green chemical technology.

Challenges Faced by DCC and Their Solutions

Sustainable development



Responsibility Division of the R&D Team

Innovative R&D	Application Development
New product R&D planning, progress tracking and execution of results assessment, instructions and reviews of patents and intellectual property rights applications for new products and processes.	Existing product R&D planning, progress tracking and execution of results assessment, instructions and reviews of patent and intellectual property rights applications for existing products and processes.

DCC continues to invest in R&D resources – our R&D investment in 2022 totaled NT$220 million, with a total of 117 patents obtained. Furthermore, we carry on our engagement in industry-academia cooperation development and strategic partner alliances. Annual investment is NT$6.25 million, and the Group's total investment since 2017 is NT$30 million. Our partners include National Tsing Hua University in the Forward-Looking Technology Industry-University Cooperation Program which is currently in its 5th year. We also work with National Taiwan University, National Chiao Tung University, National Central University, National Chung Hsing University, Yuan Ze University, Chung Hua University, National Taiwan University of Science and Technology, National Chung Cheng University, the Industrial Technology Research Institute, the Plastics Industry Development Center, as well as the Food Industry Research and Development Institute. With our R&D direction of green chemistry, process enhancement, and biomass, we provided assistance to the group in developing new high value-added products, upgrading core technologies of existing products and optimizing existing manufacturing processes. These included carbon dioxide capture for chemical raw materials, new catalyst technologies, and the development of biotechnology processes for replacing carbon chain diacid in traditional chemical synthesis processes, the related technologies have gradually entered into the results of yield improvement and process amplification. Through the integration of power resources and green chemical technology, we are moving towards sustainability while enhancing the professional knowledge of the Group's research personnel. Major innovations and achievements of DCC are explained in later sections of this chapter.

Industry-academia Cooperation Development Between DCC and Academic Partners

Issue

- Solve the problem of increasing petrochemical raw materials and reducing product carbon footprint
- Adjust the product production path, move towards green technology, and improve the function and value of current products

Action

- Technologies including gene editing microorganisms for producing biochemicals
- Develop green energy/ materials for production of high value products

Technology Development

- Green and recycled materials (e.g., biomass and recycled chemical materials)
- Eco-friendly and high value-added products (e.g. 5G-related, biodegradable materials)

Key patent deployment, long-term training of professional R&D professionals

Collaboration between the two parties entered its eighth year

- Accumulated 101 key patent applications
- 288 master and doctoral talents have been cultivated into the R&D personnel
- 185 students have graduated and served in industry and academic research of related fields

Gene Editing Microorganisms for Producing Biochemicals

Development of Taiwan's own production technology for biochemicals

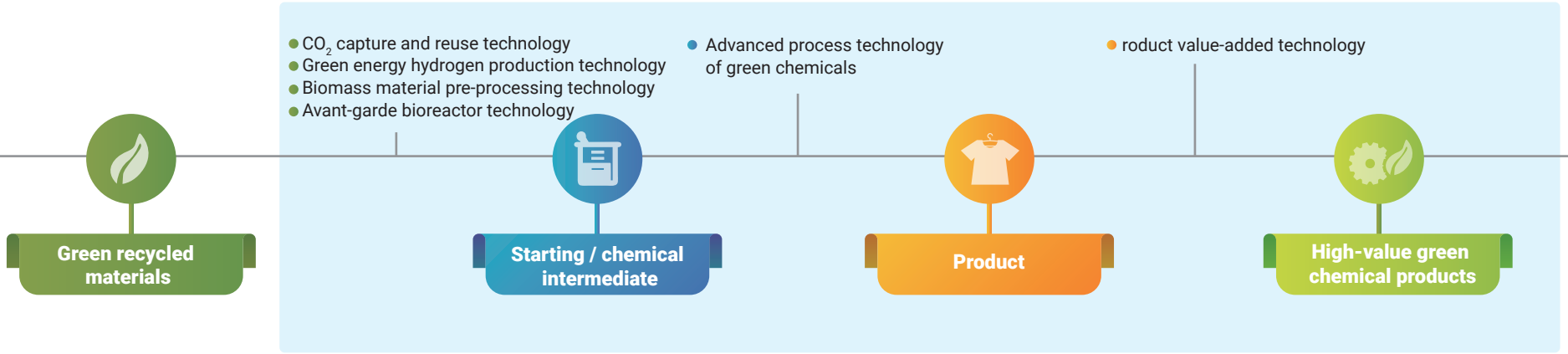
By screening microorganisms, applying forward-looking gene editing technology to regulate microbial metabolic pathways, and developing bioreactor fermentation processes, we have established a biological process that can convert alkanes or sugar starting materials into downstream bio-derived chemicals, achieving green sustainability.

Production of High Value Raw Materials - Medium Carbon Chain Dibasic Acid

- An important raw material for manufacturing high-value polymers. The traditional chemical production requires high temperature, high pressure, and is likely to result in an explosion risk, high pollution, and other problems. Biotransformation is the best alternative. However, Taiwan does not yet possess the technical capabilities to produce medium carbon chain dibasic acid by biotransformation.
- We use a new genetic editing technology to modify the strain and produce medium carbon chain dibasic acid, with the yield exceeding the world's leading manufacturers by approximately 50%, while achieving the purpose of carbon reduction, energy saving, and high value. This is currently undergoing the process of commercial production.

Patents obtained in 2022 5

Accumulated patents 117



- Assessment prior to R&D: The Group's R&D programs are performed in accordance with the Management Operating Procedures of Toxic and Chemical Substances of Concern.
- New product development: Reduce the use of management substances of very high concern and carry out environmental impact significance assessment.
- Existing products: Promote solutions to replace management substances of very high concern in order to reduce health and environmental hazards.

Looking ahead to the future, DCC intends to invest in renewable energy raw materials, biomass raw materials, and healthcare materials. In addition to establishing green technologies from upstream raw materials to downstream products, we also enhance process efficiency and biodegradable materials R&D and certification through the development of high-value technologies for green energy, biomass processes, and products, including carbon capture, volatile organic compounds (VOCs), and toxic waste reduction and development. Not only does establishing a technological threshold enable our products to maintain highly competitive in the industry, it also gives an advantage in the transformation trend of the shoal gas and coal chemical industries, becoming a benchmark in response to climate change.

DCC attaches importance on the impact posed on humans by chemical substances of very high concern. Through assessments prior to R&D and new product development, the Group reduces the use of chemical substances of very high concern. In terms of existing products, the Group seeks substitutes for the use of chemical substances of very high concern. When using chemical substances of very high concern is unavoidable, we have formulated clear management measures and operating procedures that clearly record the operation of chemical substances of very high concern and we carry out control on the usage.

Applications of Green Process and Green Products

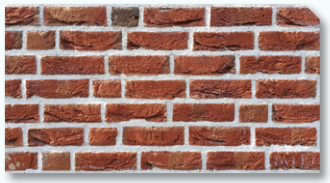
Development in 2022 and the future

- Reduction of human health hazards.
- Mitigation of climate change.
- Reduction of negative impact on the environment.
- Increase of production process efficiency.

Reduction of Human Health Hazards

At DCC, we insist on providing customers with the safest products that are also environmentally friendly. Through R&D and innovation, we constantly reduce substances (VOC) harmful to humans. By doing this, customers will use our products with peace of mind, caring for human health.

Reduce VOCs

Product	
Low VOC eco-friendly coating - vinyl acetate-ethylene copolymer emulsion (VAE Emulsion)	 DCC has developed its own VAE products that meet green industry standards. These VAE products are formaldehyde free, plasticizer free, no film forming aid required, and have low temperature flexibility and ultra-low VOC waterproof coating. Taking into account market demand, a new technology was introduced to allow VAE Emulsion to have both anti-freeze thawing resistance and water resistance, maintaining good low temperature stability without adding anti-freeze agents, further achieving the goal of low VOC eco-friendly coating products. At present, well-known domestic and international waterproof manufacturers have adopted and approved this new technology.
Low VOC vinyl acetate-ethylene redispersible powder (VAE powder)	 The development of low VAE powder can be applied to diatom mud decorative materials, dropping VOC emissions by 60-80% and meeting the European VOC standard of less than 100ppm.

Mitigation of climate change

Given the fact that climate change and global warming are the most serious issues faced by mankind, at DCC, we vow to exert our professional capabilities to respond to climate change. To do this, we have proactively initiated the “Carbon dioxide Reduction” plan by developing carbon dioxide recycling technology, which can effectively mitigate GHG emissions.

Use of carbon dioxide

Product	
Reuse of Carbon Dioxide (CO_2) - Acetic Acid Production	CCPG is the only company worldwide that uses CO_2 from capture processes as a viable feedstock for acetic acid synthesis. The CO_2 recovered from CCPC Mailiao Factory's using DCC's chemical process in 2022 totaled 44,000 metric tons. Some of the CO gas from the BDO process of the DCC Mailiao Factory has also been recovered for the acetic acid factory to use, recovering an average of 1,440 metric tons per year This act not only achieves the integration of upstream and downstream, it also avoids direct CO_2 emissions in the atmosphere, thus reduce global warming.

Reduction of Negative Impact on the Environment

"Plastic restriction" has become a trend all over the world with many countries introducing a variety of types of plastic restriction policies, including Taiwan's restrictions imposed on disposable plastic straws. Therefore, we have put a lot of work into developing biodegradable plastics as a new generation of green materials that can degrade in the natural environment, thus friendly to the environment. In the meantime, "circular economy" is also an issue which we attach great importance to - we recycle various types of waste to reduce waste production, and by doing this, we extend the product values.

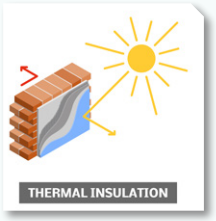
Improvement of Properties of Decomposable Materials

Product	
VAE powder - for (polylactic acid) PLA biodegradable materials	In the field of biodegradable material application, PLA and VAE powder have good compatibility. Water-based and environmentally friendly VAE powder is used to improve the hard and brittle disadvantages of PLA to make it more flexible and improve the impact strength. Passing the ISO 14855 biodegradable requirement (≧ 90%), this product increases the breadth of application while maintaining the original biodegradable properties and can be applied to packaging materials, forming materials, and paper laminates packaging, utensils, and tableware.
1,4-Butanediol (BDO) for decomposable plastic materials	BDO is the main material of polybutylene adipate terephthalate (PBAT), which is biocompatible and biodegradable, used to produce plastic bags, packaging materials, and containers for daily necessities. BDO can also be used to produce polybutylene succinate (PBS), which also has decomposable properties, and widely used in packaging, utensils, and tableware.

Recycling technology

Product	
Gamma-Butyrolactone (GBL) - used in lithium battery electrolytes	Gamma-Butyrolactone (GBL) was often regarded as process waste in previous years. In response to the requirements of a circular economy and process waste reduction as well as the development of the power battery industry in recent years, the current process is designed to purify GBL which is sold as a product for N-Methyl-2-pyrrolidone (NMP), a raw material for lithium battery electrolyte. Power battery manufacturing is thriving. With the rise of new energy policies, transportation power storage construction and the mobile communication industry, power battery manufacturing will contribute to the growth of the energy storage battery market.

Applied Energy Saving Products

Product	
VAE powder - used for the adhesion of building energy saving materials	 VAE powder is used for thermal insulation material adhesion. By applying it on exterior walls, it effectively insulates the thermal insulation foam or thermal insulation tile and blocks the impact of outside temperatures to maintain a comfortable internal environment and reduces the use of air conditioning. As the emulsion film is formed and cured, the adhesion of the adhered body increases, allowing the polymer finishing mortar on the insulation foam material breakage rate reaching ≥ 90%, and can penetrate into the gap of the base layer. VAE is widely used in the construction industry as its water resistance can enhance the bonding strength of insulation materials and exterior walls to increase their service life. The VAE powder sales volume in 2022 is equivalent to 5.15 million square meters of coating area. Its insulation and energy saving benefits are equivalent to a reduction of approximately 2,112 metric tons of CO_2 emissions.

Increase of Production Process Efficiency

We continue to make every effort in green process development through process integration and technological breakthroughs. By improving production capability and reducing energy consumption, we create a process environment that minimizes pollution.

Product	
1,4-Butanediol and polytetramethylene ether glycol received state-level green manufacturing design product list	1,4-Butanediol (1,4-BDO) of the CCDPJ was awarded with a Provincial Green Design Product (the 6th provincial green manufacturing list in Liaoning Province). In 2022, the CCDPJ continued to strengthen and develop its green manufacturing system and its 1,4-BDO and polytetramethylene ether glycol (PTG) was awarded with the 2022 Green Design Product. Social and environmental benefits: ● Relieve environmental pollution; ● Save resources and energy to achieve the sustainability of resources Corporate benefits: ● Reduce the overall costs of products; ● A green design product shows that the product has robust environmental performance, which improves product visibility and competitiveness, further enhancing corporate image.

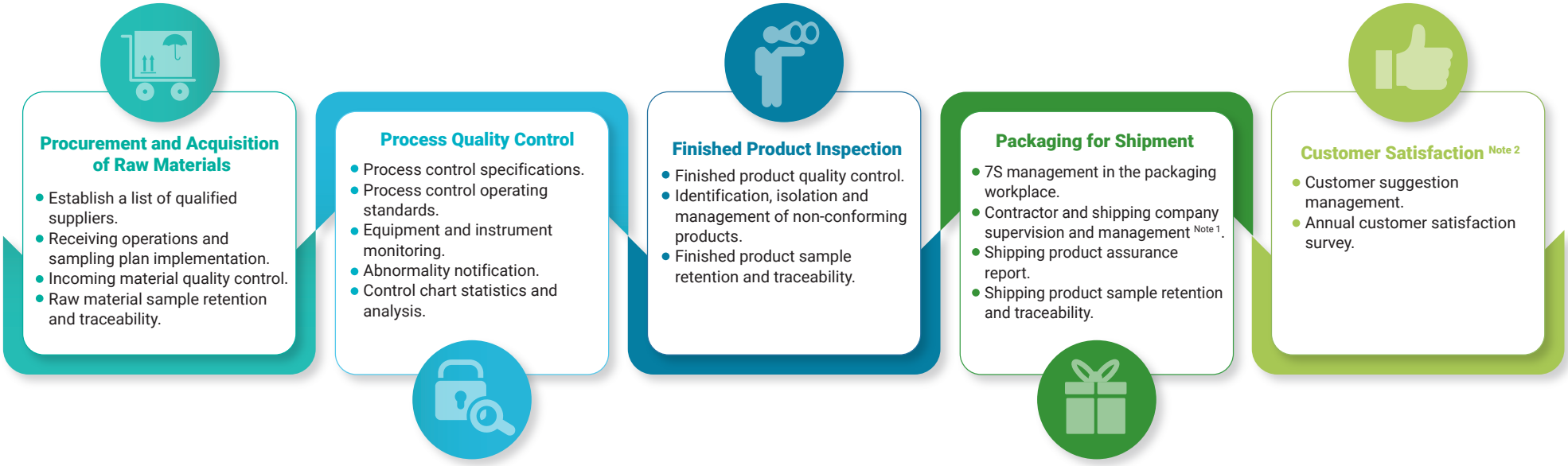
Product	
VAE product receiving China Environmental Labeling	 China Environmental Labeling, the most authoritative certification in terms of green products and environmental protection products in China, is also known as the ten-ring certification. Having this certification represents the official recognition of product quality and environmental performance. There is an increasing demand for green products in the market. DCCJS's VAE products receiving the China Environmental Labeling shows that they are less toxic and harmful compared to other similar products and have an environmental advantage such as saving resources. This enables consumers to better understand which products are good for the environment and harmless to their health, facilitating green product buying.
To replace ethylene vinyl acetate-vinyl chloride co-polymer (EVA-VC) with vinyl acetate-ethylene (VAE) copolymer	After terminating the production of vinyl chloride and EVA-VC, the annual transportation carbon emissions and exhaust emissions will reduce by 13.3 tons of CO_2e/year. As the production efficiency of VAE is higher than that of EVA-VC, electricity consumption for production will be reduced by 760MW/year, 460 tons of CO_2e/year. In response to the global trend of reducing emissions and the occupational safety threats arising from the storage of vinyl chloride monomer (VCM), in November 2022, DCCM put a stop to the import and storage of vinyl chloride materials. DCCM's downstream product, EVA-VC emulsion, was also terminated. EVA-VC emulsion was replaced by VAE emulsion which is highly promoted by the Group as it can be fully biodegraded.
Production capacity improvement; energy consumption reduction	Improvement in the process for vinyl acetate-ethylene copolymer emulsion (VAE emulsion) was undertaken. Through process improvement, the Kaohsiung Factory shortened the reaction time to 2.5 hours to improve the reaction rate through enhancing the reaction rate, while also improving production capacity by 3%. DCCM also shortened the cycle time by 12% and improved the loading by 8%, allowing the total production capacity to increase by approximately 20%. The original unit consumption and emissions also dropped by approximately 5% and 40% respectively. The total annual power consumption can be reduced by 17,760 kWh, equivalent to a reduction of 11.6 metric tons of carbon dioxide emissions.

DCC is aware that the earth's resources are limited. Under the impact of stricter environmental laws and regulations, DCC has begun to develop products with high material efficiency and low energy consumption and emissions. For example, optimizing materials to enhance thermal insulation of buildings and developing biodegradable plastic materials that can degrade in the natural environment and are friendly to the environment. DCC takes a proactive approach when it comes to the development of cost effective solutions, while at the same time meeting market demand and environmental sustainability, The revenue of these products totaled NT$12.3 billion in 2022.

1.2.2 Product quality management

With our quality policy of “make continuous improvements, honor our commitments, improve our quality, satisfy our customers”, DCC commits ourselves to providing customers with products and services that are satisfactory. To ensure quality and stable supply, we implement stringent quality management and enhance process control. We have also established a supplier management system (please refer to 1.3. Sustainable Supply Chain Management) to promote sustainable development of the supply chain.

Quality Management Process



Note 1: For contractor and shipping company supervision and management, please refer to 1.3.2 Supplier Management System.
Note 2: For customer satisfaction, please refer to 1.2.3 Customer Service.

At DCC, the Quality Assurance Department conducts an annual thematic audit, and reviews quality-related issues and management systems monthly. In addition, through the management meeting held in the factory and product marketing activities, we are able to thoroughly discuss quality improvement plans, the development of new products, existing products, and new specifications. We hope, by continuing to make improvements and innovate our development, we will enhance product quality and competitiveness, further increasing our customers’ trust and satisfaction.

Strengthen Quality Education

In order to deepen the quality culture of DCC, we continue to strengthen employees' professional competence in quality, and have planned various physical courses as well as digital courses for employees so that they are able to review the courses at all times. By doing so, we aim to improve the awareness of quality of all DCC employees.

2022		2023	
Physical Courses	**Digital Courses**	**Physical Courses**	**Digital Courses**
ISO 9001 Quality Management		**6 Sigma**	
JMP Data Analysis Application in Chemical Processes	Measurement System Analysis (MSA)	JMP Data Analysis Application in Chemical Processes	Data Analysis With Graphing - JMP Software
Automatic Production Quality Report	JMP Data Processing		

In-depth Quality Events

We value the creativity of our employees and inspire their motive for quality improvement to prevent the occurrence of possible abnormality while also optimizing the method of operation. In addition, we do not limit our employees to just quality control. Our employees are also encouraged to propose improvement plans from different perspectives associated with industrial safety, environmental protection and engineering technology. By taking this approach, DCC create a safe working environment which allows the growth of the company and employee, contributing to the Group's sustainable development.

DCC's 2020-2022 Number of Improvement Plans Proposed

- 2020 **632** proposals
- 2021 **726** proposals
- 2022 **656** proposals

Product Certification

DCC has 17 products, all of which have been certified with ISO 9001:2015, continuing to pursue quality products and services. Also, as we attach great importance on the list of substances of very high concern (SVHC) under the EU REACH regulations and the restriction of hazardous substances in electrical and electronic equipment under RoHS, we perform testing on all related products. Furthermore, in order to expand our business to meet our customers' needs, all of our products meet the regulations required in the food container, cosmetics, and cigarette adhesive industries.

DCC's Certifications ↓

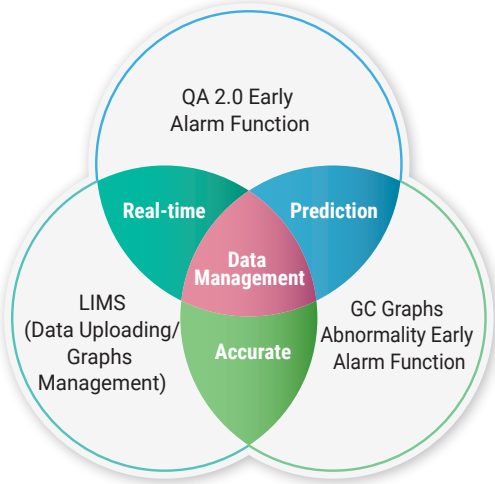
- BPA Free
- U.S. Food and Drug Administration (FDA) regulation (FDA 21 CFR 175.105)
- Food Contact Materials and Articles Additives - National Food Safety Standard (GB 9685-2016)
- Safety requirements of adhesives for cigarettes (YQ 5-2019)

Quality System Audit

We review the Group's quality management system's implementation effectiveness through thematic and ad hoc internal and external audits (held at least once a year in each factory), as well as occasional audits performed by customers. Through Plan-Do-Check-Act (PDCA), we review ourselves and continue to make improvement in order to refine our quality system. At the same time, we strengthen operating procedures via mutual exchanges and sharing of quality management experiences with those holding the same positions in the factory. In addition, we arrange a supplier audit on a regular basis to confirm that our supplies are in compliance with the requirements of DCC's product management and to maintain the supply, quality and service of raw materials.

Optimize the Inspection Data Management Mechanism

In 2022, DCC introduced the "Laboratory Information Management System (LIMS)" in all Taiwan factories, and the Management Information Center developed a quality assurance system (QA2.0) with the process deviation monitoring early alarm function and a gas chromatography (GC) chromatogram monitoring and early warning system. With the three operations fully automated, it poses benefits to DCC to build a big data database with statistical value, simultaneously improving the data management capability of the laboratory and the capability of process management.



Integration of Quality Inspection Instrument Calibration System

DCC is dedicated to system integration to achieve consistent workflow and unified data management. The integration of a quality inspection instrument calibration system was completed in 2022 and went offline in all factories in Taiwan and factories. In addition to automatically generating calibration work orders for calibrators to fill in calibration data, the quality inspection system is also used by factories to check the list of quality inspection equipment for evaluation of equipment borrowing or technical exchange.

1.2.3 Customer Service

Good Customer Communication

At DCC, we value customer-oriented quality management and customer relationship management. We maintain sound communication with customers via regular customer visits, customer satisfaction surveys, and customer feedback forms and the CRM system. From customers' feedback, we make corrections or development aiming to reduce the defect rate and grievance rate. Furthermore, improvements are made from the customers' perspectives and we strive to find out the causes of customer complaints through joint collaboration of business, R&D, QA units, or even external partners. By doing so, we aim to create maximum social values for both DCC and customers.

As a means to strengthen customer relationships, in addition to the above communication means, we also actively participate in important exhibitions at home and abroad. For example, at the 2022 Taipei Building Show, where we exchanged market information directly with customers and built an immediate communication channel.

We provide a platform for customers to exchange views, request information, and ask for prices on DCC's website. At the same time, customers' questions and opinions are immediately responded to on this platform. DCC's latest information is also announced on the official website to keep our customers up to date of important information.

2022 Taipei Building Show

Product Information Disclosure

Based on the industry and product category, the Company's official website provides customers with clear and detailed product information. Customers may inquire information on the Group's products regarding their characteristics and applications. e-Catalogs and related certificates are also available on the website for download. Customers may submit a request or feedback through our website where they wish to obtain further product specifications or material safety data sheet, or have any questions related to our products. Queries will be answered by our responsible unit.

VAE Product Catalog ↓

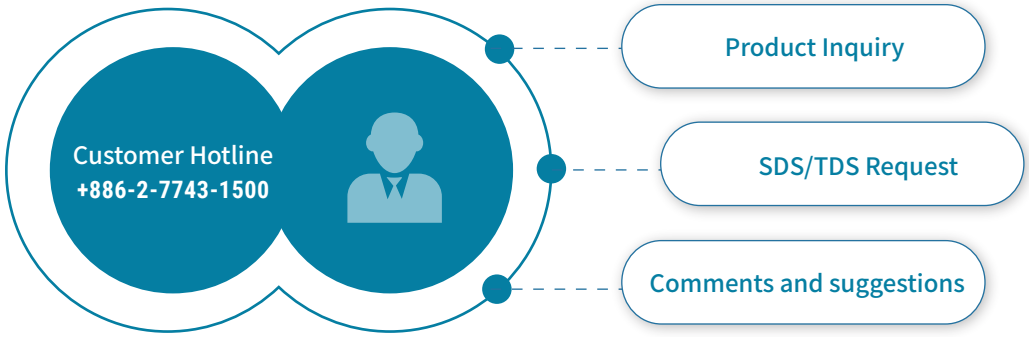
VAEP Product Catalog ↓

CCPG Catalog ↓

Customer Opinion Processing

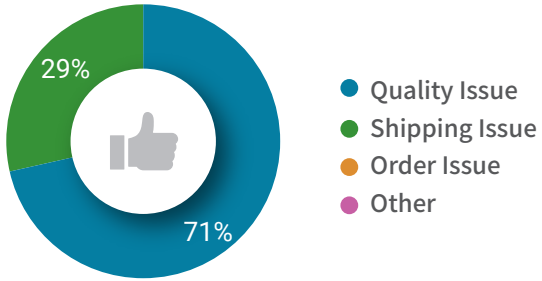
With the intention to collect customers' valuable feedback, at DCC, we have established clear procedures for customer grievance channels, returns/exchanges, and compensation applications. We collect customer comments through customer visits, E-mails, Office website - Contact Us and customer hotlines. To fully record the reason and the process of their feedback, relevant comments are logged into the customer feedback system. The manager assigns the matter to the relevant unit, who will conduct an investigation and analysis, and the customer will be responded accordingly with proposals of appropriate improvement plans as soon as possible. After the matter is solved, we will propose corrective measures to avoid recurrence through the statistical data of the customer feedback system.

At "Customer Service" on our website, we provide three services:



Customer Opinion Processing Procedures

DCC - 2022 Customer Feedback Ratio



Customer satisfaction survey

As DCC holds customer feedback in high regard, we perform a customer satisfaction survey on an annual basis. The subjects of the surveys are the top 10 customers in terms of sales volume or customers who have made a complaint in the previous year with 4 core topics: service, quality, delivery and overall impression. Through the survey, we will collect different views and make continuous improvements. We aspire to satisfy our customers by collecting their feedback, and thus maintaining a good relationship and communication channel with them.

In 2022, 13 products of DCC were surveyed for customer satisfaction and obtained an average satisfaction score of 4.71. DCC strictly controls the information of customers. In 2022, there were no incidents of breaches of customer privacy or losses of customer data. For related methods, please refer to 4.1.2 Risk Management.

1.3 Sustainable Supplier Chain Management

Management Policy for "Supplier management"

Meaning of Topics for the Group	Suppliers are the strategic partners for DCC to enhance products and services; they are at the same time vital stakeholders for us to practice CSR. Through the execution and promotion of sustainable supplier policy, we are able to effectively manage suppliers and jointly grow to reach the goal of sustainable management.
Policy Guidelines	■ Responsible sourcing ■ Supplier management system ■ Local procurement and compliance

Target

KPI	Short-term Target (2023)	Medium-term Target (2025)	Long-term Target (2030)
Supplier Code of Conduct signature rate (Promotion of Supplier Declaration of Conflict-free inerals: incorporated into Supplier Code of Conduct clauses)	Continue to increase the signing rate of the Group each year until it reaches 100%	The signing rate maintained at 100% each year	
Formulate a policy for conflict minerals and complete the due diligence on conflict minerals for metals used in the process.	Remain 100% every year		
Practice social responsibility risk assessment and site audits of major raw material suppliers	Re-examine the supplier scope each year to shorten survey frequency		

Action Plan

- ■ Supplier Code of Conduct promotion
- ■ Promotion of Supplier Declaration of Conflict-free Minerals
- ■ Implement social responsibility risk assessment of suppliers
  - ● Formulate surveys for social responsibility risk assessment of suppliers
  - ● Complete survey and statistics on major raw material suppliers
  - ● Conduct site audits on high-risk suppliers

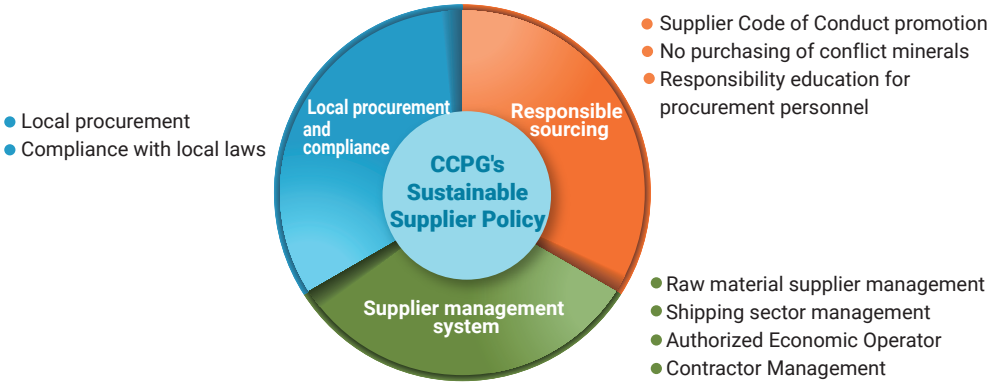
2022 Implementation Result

KPI	Achievement for 2022
Supplier Code of Conduct signature rate (Promotion of Supplier Declaration of Conflict-free Minerals: incorporated into Supplier Code of Conduct clauses)	Taiwan: Local purchase suppliers 100%; Offshore purchase suppliers 100%; Overseas Factories 100%
Formulate a policy for conflict minerals and complete the due diligence on conflict minerals for metals used in the process.	100%
Practice social responsibility risk assessment and site audits of major raw material suppliers	● Shorten the Investigation Frequency: From once every three years to once a year. ● Expand investigation scope: If the number of suppliers is less than three after excluding internal purchases from affiliates, the assessment scope will be extended to suppliers whose purchases account for more than 3% of the total amount. ● The risk assessment for 2022 was completed, with medium to high risk suppliers arranged for on-site audits. Total number of suppliers investigated: 27; Number of medium to high risk suppliers: 1

Communication/ Grievance Mechanism

- Continue to maintain communication with external suppliers, while providing coaching and promoting policy to employees.
- Grievance mechanism: Report to ccpgaudit@ccpgp.com

DCC follows the CCPG sustainable supplier policy which can be divided into three major aspects: responsible sourcing, supplier management system, and local procurement and compliance.



1.3.1 Responsible sourcing

Supplier Code of Conduct promotion

- Freedom of association and collective bargaining
- Anti-discrimination
- No disciplinary measures
- Anti-forced labor
- Working hours and salary
- No child labor
- No conflict metal

In a bid to raise CSR awareness in our suppliers, DCC facilitate promotion regarding matters including “labor rights”, “human rights issues”, “business ethics” and “conflict minerals”. We also enter into contracts or agreements with suppliers who we have business dealings with. According to the feedback and signature situation, we have revised the Supplier Code of Conduct. The recognition for the code covers (1) supplier announcement on the website, (2) supplier’s own version, and (3) signing our version. The current implementation status of the signing of the Supplier Code of Conduct is as follows. We will continue to carry out signing in the future, and the goal is to achieve a 100% signature rate.

Supplier Code of Conduct ↓

Current Implementation Status of the Signing of DCC Supplier Code of Conduct

Year	Region	Factory	Implementation Status
2022	Taiwan	Taipei Company and Factories in Taiwan	● 100% signing of local supplier contracts/B2B system in Taiwan. ● 100% signing rate of foreign suppliers in Taiwan (including supplier announcement on the website)
	Overseas	DCCJS	100%
		CCDPJ	100%
		CCDSG	100%
		DCCM	100%

No purchasing of conflict minerals

With our continuous dedication to responsible supply chain, DCC continue to make a contribution to reducing social, environmental, and safety risks in the supply chain. DCC are committed to not purchasing conflict minerals and products made from conflict minerals. At the same time, we ask our suppliers to also make an effort to ensure a responsible supply chain.

Sourcing Policy for Conflict Minerals ↓

To ensure that products do not contain conflict minerals, DCC’s main policies are as follows:

1. Suppliers must sign the “Supplier Code of Conduct” as to commits that their products will not contain conflict minerals.
2. Prior to conducting procurement operations, confirm if that products provided by suppliers are involved in conflict minerals.
3. For suppliers who provide products related to conflict minerals, we conduct a regular investigation each year on specific metal manufactures or their precious metal counterparts to find out whether they are on the Good Delivery List announced by the London Bullion Market Association (LBMA) in accordance with the latest Conflict Minerals Reporting Template (CMRT) and Cobalt Reporting Template (CRT) released by Responsible Minerals Initiative (RMI). By doing this, we ensure the origin of metals used by our suppliers.

100% of suppliers involved in conflict minerals-related products in 2022 completed template release and recovery, with results showing that their minerals are of compliant origins, as shown in the table on the right.

Taiwan	DCC		3
Overseas Factories	DCC	CCDPJ	Not involved
		DCCM	
		CCDSG	2
		DCCJS	Not involved

Responsibility education for procurement personnel

In addition for the Sourcing Policy for Conflict Minerals designed for suppliers, DCC believes that the front-line procurement personnel who communicate with suppliers must also be provided with CSR education. In addition to providing our new procurement personnel with necessary practitioner and CSR education and training, we also develop their basic concepts and help them understand the Group's CSR policy. Online courses were launched in 2018, with a total of 79 participants and a 100% passing rate for newcomers. After becoming an official employee, the ESG team enforces courses with other related topics through the Group's e-learning education and training platform. This continues the strengthening of CSR awareness of the procurement personnel.

Compliance with local laws

In an attempt to comply with the EU REACH and RoHS requirements to reduce the impact of chemicals on the ecosystem, DCC have established a chemical management mechanism (for management measures, please refer to 3.4.1 Chemical Safety). We also require raw material suppliers of related products to provide the following review information:

- Provide ICP-AES test data for detectable substances or analysis report from a third party (e.g. SGS) - 10 hazardous substances required by RoHS.
- Safety Data Sheet (SDS).

DCC's Environmental Substance Management Procedures

- Conduct chemical risk identification prior to application and procurement.
- Perform chemical management according to the review information provided by the supplier.
- Ensure the chemical complies with RoHS/ SVHC/REACH regulations.
- Conduct procurement according to compliance.

Green procurement: Purchasing IE3 or above high efficiency motors

Little Stories

IE (International Efficiency) refers to motor efficiency defined by the International Electrotechnical Commission (IEC). The energy efficiency levels are IE1, IE2, IE3, and IE4 - the larger the number, the better the efficiency and the more energy saving. Compared to IE1 motors, the efficiency of IE3 motors can be increased by 1.7% to 7.5% (depending on the power). The statistics of IE3 or above high efficiency motors purchased by DCC in 2022 are as follows:

Factory			Motor efficiency	2022 procurement amount	Currency	In USD
Taiwan	DCC		IE3	1,569,950.00	TWD	52,692.04
Overseas Factories	DCC	CCDSG	IE3	249,999.00	USD	249,999.00
		DCCJS	IE4	22,300.00	RMB	3,200.00

Note: CCDPJ, and DCCM did not independently purchase IE3 motors or above in 2022.

1.3.2 Supplier management system

DCC hopes, by making constant improvements regarding the supply management and requirements, we will be able to reduce quality, environmental, safety and social risks, further achieving the goal of reducing the CSR risks of suppliers.

The DCC's supplier management system is explained as follows in three types: raw material suppliers, shipping company and contractors:

Raw material supplier management

At DCC, in 2022, there were 92 qualified raw material suppliers in Taiwan; 126 in overseas, totaling 218 suppliers (the number of qualified suppliers was counted by each company in the Group. If a supplier is a qualified supplier in two of the Group's companies, the number of that supplier will be counted by each of the two companies).

Supplier Type	Management Regulations
New Suppliers	● Meet quality, environmental, health, and government regulations. ● Obtain ISO 9001 or other quality system certification. ● An evaluation team composed of by Quality Assurance, Production and Procurement departments perform on-site assessment on new suppliers. Those that meet criteria become qualified suppliers. ● Unqualified suppliers will be notified of the reason and can re-enter the evaluation process after improvement.
Existing Suppliers	● Compile the delivery records of products from the supplier to each factory in the previous year, and evaluate each supplier based on the quality environment, services, and delivery documents. ● Increase the purchase frequency or prioritize the products from suppliers with higher annual ratings. No purchases shall be made from disqualified suppliers in the current year. ● Arrange annual supplier on-site audits on the supplier's quality system, supplier management, material and production management, as well as environmental safety management.

Note:The above enforcement points may vary slightly depending on local regulatory requirements and regulations for operations.

ESG Risk Assessment of Major Raw Material Suppliers

In 2019, DCC initiated its first CSR risk assessment of major raw material suppliers. The on-site audits of medium- and high-risk suppliers, that should have been completed within three years according on the assessment outcome, were forced to be put on hold due to the COVID-19 pandemic. With the pandemic appearing to have slowed down in 2022, the audit plan was restarted according to the current year' s collaboration status. One audit was conducted in Taiwan and two audits overseas by Panjin Factory. Due to the fact that other factories overseas did not have medium- or high-risk suppliers, or no longer worked with those suppliers, no audits were arranged.

In 2022, DCC reexamined its assessment mechanism and revised its assessment procedures, as follows:

Evaluated Supplier

- Ranked according to the raw material purchases from October of the previous year to September this year, the amount of raw materials purchased in the stated period (calculated separately by each company). The main raw materials suppliers whose total supplies account for more than 70% of total raw material purchases, excluding internal purchases from CCPG's affiliates. If it is confirmed that no purchases will be made from such supplier in the assessment year, the supplier will not be listed for assessment.
- Additional Conditions: If the number of suppliers is less than three after excluding internal purchases from CCPG's affiliates, the assessment scope will be extended to suppliers whose raw material purchases account for more than 3% of the total amount.

Assessment Content

Stage I

Understand the public ESG or CSR disclosure status of major raw material suppliers. List those who take the initiative to disclose ESG or CSR information and statement as suppliers with low risks.

Stage II

A ESG risk questionnaire will be distributed to suppliers with lower degree of ESG or CSR information disclosure from Stage I to investigate their implementation results in terms of quality/safety/environmental protection/human rights/ social aspects with supporting information submitted. The ESG risk level of the supplier will be determined according to the questionnaire results.

Survey Frequency

Once every year

Assessment Handling

After two stages of assessment, medium and high risk suppliers are scheduled to be included in the on-site audits within one year. Through on-site visits and exchanges, advice will be given from all aspects and improvements required within a deadline to track the effectiveness.

2022 Statistics of ESG Policy Risk Survey of Major Raw Material SuppliersRaw Material Suppliers

Area		Taiwan	Overseas Factories			
Company/Factory		DCC	DCC			
			DCCJS	CCDPJ	CCDSG	DCCM
Total Number of Suppliers		9	6	3	5	4
No. of Suppliers Assessed (Affiliates excluded)		5	4	1	5	4
Number of Suppliers Who Have Released ESG/CSR Reports/Disclosures		4	2	0	5	4
Number of Questionnaires Distributed		1	2	0	0	0
Consolidated Public Survey and Questionnaire results (total number of suppliers)	High-risk	0	1	0	0	0
	Medium-risk	0	0	0	0	0
	Low-risk	9	5	2	5	4

Note1: Calculated by each company in the Group; if a supplier is supplier of main raw materials in two companies under the Group, the quantity of the supplier will be counted separately in the two companies.

Note 2: CCDPJ had one supplier. As CCDPJ did not have business dealings with such supplier in 2023, no questionnaires were distributed.

A total of 55% of the major raw material suppliers voluntarily disclose their CSR messages. The consolidated survey and questionnaire results show that 92% of the major raw material suppliers are aware of their social responsibilities in terms of management, the environment, safety and health, and labor human rights, and have taken action.
In 2023, on-site audits were arranged for a small number of medium- and high-risk suppliers. On one hand, we were able to understand the status of suppliers, and on the other hand, we conducted supplier counseling by executing the improvement plan in order to reduce the Group's CSR risks with respect to supplier management. Although most suppliers can be determined to have low risks based on the public survey results and the completeness of the questionnaires, CCPG still made an effort to plan on-site assessments for some suppliers according to the business dealings for the year, hoping to establish long-term partnerships through friendly engagements with major suppliers.

Shipping sector management

In 2022, DCC had 18 qualified transportation suppliers in Taiwan and 29 overseas, totaling 47. There were no major shipping incidents in 2022; the company has established a comprehensive response mechanism for shipping incidents. In the event of an accident, response personnel are immediately dispatched to the premises to reduce the impact on the environment. In addition, transportation suppliers are also required to propose measures for improvement and prevention of reoccurrence. This will be incorporated in the evaluation of transportation suppliers.

Supplier Type	Management Regulations
New Suppliers	● Attained the ISO 9001 certification (Taiwan). ● Attained AEO certification (Taiwan; only for import/export) ● Attained shipping licenses for controlled chemicals required by law. ● Vehicles equipped with GPS devices (Taiwan). ● Investigate the system and implementation situation of contractors regarding safety, health, drivers, driving safety, vehicle and equipment maintenance.
Existing Suppliers	● According to the previous year, the user unit will fill in the satisfaction survey, and suppliers with poor results will carry out improvements. ● Suppliers are put into different levels according to the results of the annual satisfaction survey. Suppliers who fail to meet the criteria will not be used.

Note: The above enforcement points may vary slightly depending on local regulatory requirements and regulations for operations or the characteristics of the goods to be shipped.

On-site assessment and tiered management of transportation suppliers:

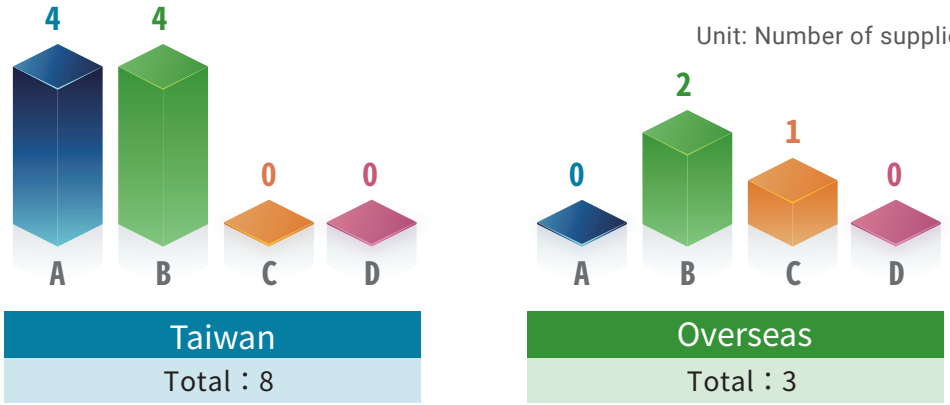
In a bid to ensure that the transportation suppliers of DCC's goods meet the requirements, we have an on-site assessment process in place to improve the transportation quality and reduce safety risks. The suppliers are graded (A-D) according to the assessment results. Grade D suppliers are given six months to make improvements and will be re-assessed. Those who fail to pass the reassessment will be eliminated. Taking Taiwan as an example, the assessment rules are as follows:

On-site Assessment Target	On-site Assessment Frequency	On-site Assessment Content
Newly Developed Shipping Companies	● Companies become qualified suppliers after the above management process has been carried out and are put on trial for one year.	These include: 1.Management 2.Safe, health, environment and security 3.Supply chain management and subcontracting 4.Equipment 5.Security during shipping (safety) 6.Operating procedures and customer contact 7.Order processing and operation 8.On-site inspection
Original Shipping Companies	Routine assessment: 1-3 years according to the level. Level C and above: Issued with a certificate and continued to be appointed. Level D Subject to improvement within a time limit and is reassessed in six months.	
	● Temporary assessment: Where there is an abnormality in the year.	
	● Shipping satisfaction survey: Completed by cooperating factories each year.	These include: 1.Coordination capability 2.Equipment and operations 3.Related laws and factory regulations 4.Abnormal Incident

Note:The above enforcement points may vary slightly due to different local regulatory requirements and regulations for operations.

According to past grading results, 11 transportation suppliers in Taiwan and overseas were assessed in 2022 and all were in line with the criteria.

Unit: Number of suppliers



Annual transport safety awareness promotion session:

In 2022, DCC conducted 6 transport safety awareness promotion sessions (two in Taiwan and four overseas). The persons in charge of the transportation companies were invited, with the highlights of the meetings as follows:

- DCC transportation regulations and precautions
- Review of the transportation accidents in the past year involving cargo of DCC and cargo of other companies
- Explanation of common defects and improvement approaches of on-site assessments

Through the promotion session, we were able to strengthen the sensitivity of transportation suppliers to potential risks and implement vehicle and driver safety management to achieve the goal of reducing transportation risks.

Authorized Economic Operator (AEO)

DCC Taiwan and CCDPJ have been accredited with AEO certification. Raw material suppliers and shipping companies have been included into the business partner management procedures. This is to review the safety operating procedures and measures of the business partners on a periodic basis or at any time, ensuring that they are in compliance with the safety standards, thus reducing risks of logistics safety.

DCC's AEO Policy ↓

Contractor Management

At DCC, we require contractors to comply with local regulations, and fulfill their responsibility in terms of taking out insurance for their employees and contracted personnel and ensuring their safety. In addition, the Company's factories clearly state contractor policies and penalties, aiming to effectively manage the behavior of contractors in the factory to maintain the safety of factory operations. At DCC, in 2022, there were 487 qualified contractors in Taiwan and 68 in overseas, totaling 555 contractors.

Supplier Type	Management Regulations
New Contractors	● The "profit-seeking enterprise registration certificate" content ● Qualification certificates required by related industries or the government ● Qualifications and licenses of relevant personnel ● Labor insurance or accident insurance required by the local government ● Safety and health education and training of contractors entering the factory
Existing Contractors	● Ensure the related qualification certificates and personnel training validity of all suppliers on a regular basis ● Establish and announce penalties. In the event of a violation, contractors are required to pay a fine. ● The contractor will be suspended where the violation is severe, or the contractor fails to make improvement after repeated reminders.

Note: The above enforcement points may vary slightly due to different local regulatory requirements and regulations for operations.

Each worker who enters DCC is subject to labor safety and health education course and is only allowed to enter the factory once training is completed. Retraining is required if the training validity has expired. This effectively facilitates suppliers' safety awareness and to reduce the risk of accidents. In 2022, a total of 4,754 contractors received training and testing for DCC. The training attendance is as follows:

2020-2022 Training Hours Received by Contractors

Year / Gender / Hours/ No. of People	2020			2021			2022		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Training Hours	4,851	320	5,171	4,848	314	5,162	4,463	291	4,754
No. of People at the End of the Year	4,851	320	5,171	4,848	314	5,162	4,463	291	4,754
Average Hours	1	1	1	1	1	1	1	1	1

Note 1: For detailed information on each factory for 2022, please refer to Appendix A.

CH2 Low Carbon and Sustainability

At DCC, we realize that companies should do more than just pursue profits; they must also fulfill corporate social responsibilities. For that reason, we regard “environmental protection” as our top mission and we are a firm believer that a good management system can improve the environment and the well-being of people.

Corresponding material sustainability topic:

Air pollutant emission management

	KPI	Achievement for 2022	Short-term Target (2023)	Medium-term Target (2025)	Long-term Target (2030)	Corresponding SDGs
Climate change mitigation	With 2021 as the base year, GHG (Scope 1 and 2) reduction was conducted in DCC (Taiwan factories): 1,936 $ktCO_2e$	2022 Emissions: 1,542 $ktCO_2e$	-	A 12% reduction compared to the base year	A 30% reduction compared to the base year 2050: Achieve net zero in line with government requirements	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 13 CLIMATE ACTION
Renewable energy	Base Year: 2021 Solar power:548kW	Solar power: 548kW	Solar power: 700kW	Solar power: 700kW	Solar power: 700kW DCC and its affiliates jointly purchased 187 million kWh of offshore wind power	7 AFFORDABLE AND CLEAN ENERGY 12 RESPONSIBLE CONSUMPTION AND PRODUCTION 13 CLIMATE ACTION
Energy conservation and carbon reduction and circular economy of energy resources	2021 Taiwan factories DCC: • Original water consumption unit of 1.91 metric tons / tons • Original steam consumption unit of 1.66 metric tons / tons • Original electricity consumption unit of 0.288 MWh / ton	• Original water consumption unit of 1.95 metric tons / tons • Original steam consumption unit of 1.72 metric tons / tons • Original electricity consumption unit of 0.313 MWh / ton	• Original water consumption unit of 1.91 metric tons / tons • Original steam consumption unit of 1.66 metric tons / tons • Original electricity consumption unit of 0.288 MWh / ton	• Original water consumption unit of 1.81 metric tons / tons • Original steam consumption unit of 1.58 metric tons / tons • Original electricity consumption unit of 0.274 MWh / ton	• Original water consumption unit of 1.72 metric tons / tons • Original steam consumption unit of 1.49 metric tons / tons • Original electricity consumption unit of 0.259 MWh / ton	7 AFFORDABLE AND CLEAN ENERGY 12 RESPONSIBLE CONSUMPTION AND PRODUCTION 13 CLIMATE ACTION
	2021 Taiwan factories: Waste Generation DCC generation: 1,945 tons	DCC generation: 1,851 tons	DCC generation: 1,814 tons	DCC generation: 1,723 tons	DCC generation: 1,633 tons	
Air pollutant emission management	2021 is the base year for emissions Note 1: SOx: 6 metric tons NOx: 109 metric tons VOCs: 149 metric tons	SOx: Reduce 8% NOx: Reduce 19% VOCs: Reduce 15%	SOx: Reduce 10% NOx: Reduce 20% VOCs: Reduce 17%	SOx: Reduce 13% NOx: Reduce 25% VOCs: Reduce 20%	SOx: Reduce 20% NOx: Reduce 30% VOCs: Reduce 25%	3 GOOD HEALTH AND WELL-BEING 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Note 1: As emissions data of overseas factories was difficult to collect, KPI was reset using the emissions from Taiwan factories.

2.1 Environmental Protection Strategy

DCC follows the management objective of CCPG's environmental, safety and health, and energy policy to meet or exceed the standards set out by the law and to implement applicable environment protection measures. To achieve our objectives, each factory consistently improves their waste recycling and production capabilities, with the aim of reducing the amount of pollution produced during manufacturing processes. Furthermore, we invest in pollution prevention and process equipment in order to achieve sustainable development through the best feasible technical measures to maintain, replace and add new equipment.

Environmental, Safety and Health and Energy Policy Statement ↓

All DCC factories have launched the ISO 14001 environmental management system to ensure that emissions and waste disposal in our production processes meet the statutory requirements. For management of and response to major environmental issues. From 2019, we began introducing the ISO 50001 energy management system in all our Taiwan factories and obtained a certificate the following year. Through the establishment of power equipment identification and energy indicators, we are able to plan improvement measures for major energy equipment. These measures are reviewed in the energy conservation and carbon reduction meeting held each quarter. We have launched ISO 9001 and ISO 45001 to implement integrated management in terms of the environment, occupational personnel safety and health and quality, creating maximum benefits. In view of the impact of climate change, DCC are currently in the process of planning various energy conservation and carbon reduction measures in both Taiwan and overseas (please refer to 2.3.1 GHG Emission Management and 2.3.2 Energy Conservation and Carbon Reduction Actions). For our grievance mechanism, please refer to Stakeholder engagement.

Environmental Protection-related Expenses

DCC is dedicated to the concept of sustainable management. In 2022, we spent NT$230 million and NT$200 million on environmental protection-related expenditures and environmental protection projects (projects established with more than NT$1 million), respectively. We also continued to invest in additional related equipment, making an effort to reduce the impact of the production process on the environment.

Green Accounting Promotion

In a bid to clearly summarize the Company's environmental protection expenditures, DCC continued to support and cooperate with CCPG's promotion of green accounting. The process of promotion is as follows:

- August 2006 - DCC received coaching from the Environmental Management Accounting Network-Taiwan (EMAN-TW), starting with CCP Kaohsiung Factory which was gradually applied to the entire Group.
- April 2009 - Measures to match accounts with environmental coding for accounts officially launched. The environmental coding for the environmental protection expenditure is entered by the procurement application or accounting personnel, and environmental protection expenditure statement is generated by the system.
- 2017 - Implemented measures to streamline the environmental coding system and the environmental coding of accounting subjects was implemented automatically by the system according to the procurement codes. 2017 - CCPG implemented 100% green accounting.
- 2018 - In line with the Greenhouse Gas Reduction and Management Act and the Group's green accounting policy, we added the calculation of carbon emission/ cost of carbon and prepared its analysis report for senior manager's reference.

- Starting from 2020, we issue the "CCPG's Current Carbon Statistics and Environmental Expenditure Statistics Compilation Sheet" on a monthly basis and is formally submitted to the executive management meeting for management's investment decision and decision evaluation basis.
- We have been planning "Carbon Pricing Accounting Principles" since 2021 and prepared a "Green Accounting Environmental Management Report" serving as an evaluation basis for management to make investment decisions.
- From 2022, "Group Product Carbon Statistics" are issued each month to provide financial data on unit carbon, carbon cost, carbon value, carbon operating income, and carbon cash flow for each product. This is used to evaluate investment decisions by management.

Legal compliance

In terms of deficiencies in each case, DCC has conducted reviews, and addressed all deficiencies and progress tracking. In 2017, we also formulated the "Regulations Identification Guidelines" which includes: notification of drafting Taiwan's environmental safety and health regulations, environmental safety and health regulations conformity identification, management of targets that are prone to the impact of the environmental, safety and health regulations identification, regular evaluation of permit conformity, regulatory inquiries, and notification of the evaluation result. By integrating the regulations associated with identification and processes, we are able to manage and evaluate them at the same time. The handling person, department manager of the Safety and Health Department of each company (factory), oversees regulatory inquiries, in the hope of reducing fines by 40% per year in the medium and long term. Moreover, the Company had no water pollution, waste, toxic chemicals, soil and groundwater, environmental impact assessment, GHG, environmental education, marine pollution in 2022, with only air pollution fines incurred. We will work hard to achieve our ultimate goal - zero fines, which will showcase our dedication to our community residents and surrounding environment.

2021-2022 Statistics of Number of Environmental Violations and Fines

Unit: NT$10,000

Item / Year	2021		2022	
	No. of Cases	Amount	No. of Cases	Amount
Air pollution	0	0	2	90
Total	0	0	2	90

Note 1: The incidents disclosed here are mainly deficiencies with fines over NT$100,000.
Note 2: The remaining pollutants not listed in the table represent no violations in the year.
Note 3: For detailed information on each factory for 2022, please refer to Appendix B.

2.2 Climate-related Risks and Opportunities

At DCC, in an effort to maintain corporate sustainability, the impact from the threats of extreme climate on the Group's operations is evaluated. These threats include international carbon tariffs, renewable energy, and water stress. Given this, we introduced a Task Force on Climate-related Financial Disclosures (TCFD) in 2019 to enhance the transparency of information associated with climate governance. The Company followed the framework recommended by the TCFD and established four major core aspects, namely governance, strategy, risk management, indicators, and targets in order to identify significant risks and transformation opportunities that climate change may bring about on operations. By centering on climate risks and opportunities in the operational phrase, financial impact is evaluated and countermeasures and management mechanism formulated. This way, we will be able to make appropriate decisions and take timely actions to effectively reduce the impact on the Group.

Governance

- The DCC's ESG Committee has been formed with the chairman of DCC serving as the chairman of the Committee and president serving as the vice chairmen.
- Since 2018, an energy conservation and carbon reduction meeting is held by the chairman and presidents each quarter to monitor energy conservation, carbon reduction and water-saving plans.
- A Carbon Neutral Team was set up in 2021 for discussion on a quarterly basis.

Introduction CH2.2

Strategy

- Accelerate low (zero)-carbon energy transition and improve energy efficiency
- Develop CCUS (carbon capture, utilization, and storage) technologies
- Promote a circular economy

CH2.2 CH2.3 CH2.4

Risk management

- Interview supervisors of each department to quantify the impact of relevant climate issues on operations and determine significant risks and opportunities using a matrix.
- We further propose management actions and solutions for risks and opportunities analyzed.
- The implementation progress is reviewed at the quarterly meeting and report to the Chairman and President.

CH2.2

Metrics and Target

CH2.3 CH2.4

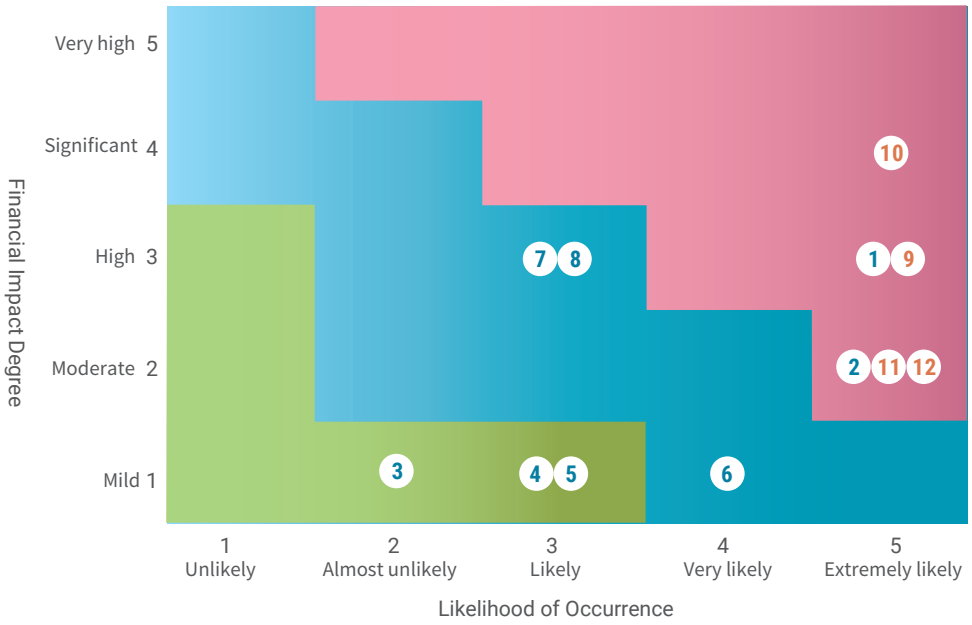
- Plan a GHG reduction path and formulate short-, medium- and long-term carbon emission targets.
- Use the guidelines announced by the competent authority to conduct Scopes 1 and 2 inventories as well as building an internal carbon emission system. Facilitate Scope 3 and product carbon footprint inventory.
- Setting an annual 3% target of reduction for water, stream, and electricity consumption and move towards low carbon manufacturing.

DCC TCFD Implementation Process:

Climate change risk awareness building	Establish climate related risk issues	Quantitative evaluation of impact on climate-related risks and opportunities	Identify significant climate-related risk issues	Management response to climate-related risks and opportunities
● Collect and study international reports and benchmarks and raise the employee's awareness of TCFD through education and training.	● After collecting information on the regulations for related policies with the TCFD official risk recommendation list and IPCC and IEA scenarios referred to, we have identified six transformation risks, two physical risks, and four opportunity issues. Factories in Taiwan were used for risk assessment.	● According to the given scenarios, we identified the financial impact of each climate issue on each factory and the Group and quantified the impact.	● Furthermore, we identified material climate issues by mapping the likelihood of the event and the degree of financial impact.	● We have further proposed management actions and responses to significant risk events and opportunities identified in the inventory, and evaluated the financial impact and plans.

Risk and Opportunity Identification - Significant Climate Risk Matrix

By interviewing each department under the given scenarios (RCP 2.6/ RCP 4.5/RCP 8.5 for physical risk and IEA NZE 2050 for transformation risk), DCC estimated the impacts from the 12 climate issues between 2030 and 2050. The impacts on operations that may be caused by each issue were analyzed and quantified. The likelihood of occurrence (horizontal axis) and the degree of financial impact (vertical axis) were scored by five levels and a matrix for risks and opportunities was created. The impacts were classified as significant, moderate, and low, and two risks and four opportunities were identified by the matrix.



1-3 Points Low Risk/Opportunity

(3) Transformation risk/regulatory policies - EU carbon tariff
(4) Transformation risk/product or market - change in customer behavior
(5) Transformation risk/company reputation - poor sustainability performance resulting in negative feedback
(6) Transformation risk/technology-substitutable raw materials

4-9 Points Moderate Risk/Opportunity

(7) Physical risk/(chronic) extreme weather events - water shortages
(8) Physical risk/(acute) extreme weather events - heavy rainfall or strong winds

10-25 Points Significant Risk/Opportunity

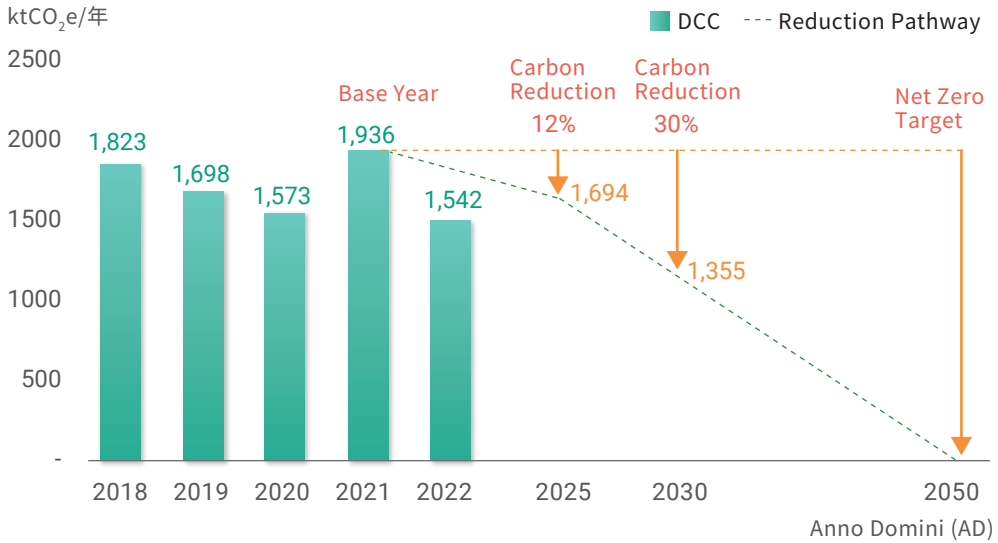
(1)Transformation risk/regulatory policies - EPA carbon tariffs
(2)Transformation risk/regulatory policies - installation of renewable energy by large electricity users
(9)Opportunity/technology - carbon capture, utilization, and storage
(10)Opportunity/product or market - development of products and services
(11)Opportunity/resource efficiency - recovery
(12)Opportunity/resource efficiency - water consumption reduction and energy-saving improvement

DCC Countermeasures for Climate-related Significant Risks and Opportunities

Item	Category	Issue	Risk/Opportunity Analysis	Financial Impact Explanation	Measure to be Taken
Transformation Risk	Regulatory Policies	EPA Carbon Tariffs	In January 2023, the "Greenhouse Gas Reduction and Management Act" became the "Climate Change Response Act", passing in the third reading. The net zero goal by 2050 and a new carbon tariff mechanism are clearly set forth in the Act, and are expected to be carried out in 2024-2025 at the earliest. The first phase of the tariff will be subject to the levy for large carbon emitters with annual emissions of 25,000 metric tons of CO_2e or more. As all factories of the Company are on the control list of the first batch, operating costs will increase. If the cost of carbon fails to be passed on, product price competitiveness will be affected.	As the Company emits nearly 1 million tons of CO_2e per year, carbon tariffs imposed cause an increase in operating costs.	● Use energy-saving and high-efficiency equipment ● Improve processes to reduce energy consumption ● Continue to install/purchase renewable energy ● Decrease in carbon emission coefficients by power and steam suppliers ● Continue to promote energy conservation and carbon reduction projects and circular economy
	Regulatory Policies	Installation of Renewable Energy for Major Electricity Users	According to the Renewable Energy Development Act enacted by the Ministry of Economic Affairs, users of 5,000 kilowatts or more are required to install 10% renewable energy or purchase a renewable energy certificate within five years of implementation in 2021. The installation of renewable energy is bound to increase the operating costs. If the legal requirements are not met, fines will be imposed (NT$4/kWh).	If the Company fails to meet the renewable energy installation requirements, fines imposed each year will result in an increase in operating costs.	
Opportunity	Technology	Carbon Capture, Utilization, and Storage	In the Sustainable Development Scenario planned by the IEA, CCUS is the key carbon reduction technology in the later stage. DCC is constantly developing CCUS technologies to convert CO_2 into green materials for chemical manufacturing to relieve chemical plants from depending on imported raw materials.	Exhaust gas is emitted from the reaction area, the LCO_2 factory is built to recover and purify high-purity liquid CO_2 to produce CO, to be used as a raw material for acetic acid. This reduces raw material procurement and save costs, or CO_2 recovered is sold to increase operating income.	● construction), and industry-government-academia cooperation.
	Product or Market	Development of Products and Services	Taking into account product life cycle and product value chain, DCC is committed to the development of low-carbon products. At the same time, DCC is keen on the investment in the renewable energy industry and the green product industry chain, expecting to boost profitability.	1 The Company is proactively investing in the production of 1,4-Butanediol (BDO), used in decomposable plastic materials, to increase operating income. 2 Acetaldehyde is used as a fuel to produce S4 steam to replace the re-reaction of acetaldehyde to acetic acid. This will increase operating income and reduce carbon emissions.	
	Resource Efficiency	Recycling and reuse	The report "Material Efficiency in Clean Energy Transitions" published by the IEA in 2019 points out that a carbon reduction benefit of 30% can be achieved by improving material efficiency. DCC strives to recycle and reuse resources while also continues to develop the purification technology of waste solvents for effective recycling of materials, achieving the goal of a circular economy.	After the polytetramethylene ether glycol (PTG) process has undergone equipment improvement, chemical emissions from waste solvents can be reduced, saving operating costs.	
	Resource Efficiency	Water reduction and energy saving improvements	To reduce our dependence on energy resources in the face of increasingly stringent climate policies at home and abroad, the Company continues to promote process water-saving and energy-saving actions. In doing this, we will increase energy and water use efficiency, enhance product competitiveness, while bringing cost-saving opportunities.	With water-saving measures, such as recycling of rainwater, wastewater, and process water, we have achieved a water recovery rate of 80%. Furthermore, we have also utilized production efficiency by integrating AI technology to save operating costs.	

DCC Short-, Medium-, and Long-term Reduction Path

With the passing of Taiwan's Climate Change Response Act and NDC's adjustment to the reduction pathway from 20% to 24±1% in 2030, equivalent to a 29% reduction in the base year 2020, DCC also began to review and revise its 2030 GHG reduction target. After evaluation and discussion, DCC (Taiwan factories) has changed the base year to 2021. The short-term target (2025) is a 12% reduction, the medium-term target (2030) is a 30% reduction, and the long-term target (2050) is to meet the government's net zero requirement. To achieve the Group's targets, various carbon reduction strategies will continue to be fostered.



DCC Carbon Reduction Strategy Planning

At DCC, we emphasize the importance of climate change issues. As well as this, we take proactive approaches when it comes to facing the impact of the global emission reduction trends on the Group's operations and have planned the direction for short-, medium- and long-term carbon reduction strategies.

Carbon Reduction Strategy	Short-term(~2025)	Medium-term(2025~2030)	Long-term(2030~2050)
Low Carbon Energy Transition	● Reduction in fuel use	● Reduction in fuel use	● Introduce alternative energy sources such as hydrogen and ammonia when commercially viable after evaluation
Indirect Energy Decarbonization	● Decrease in carbon emission coefficients by benefitting from energy transition	● Decrease in carbon emission coefficients by benefitting from energy transition ● Decrease in carbon emission coefficients by suppliers	● Decrease in carbon emission coefficients by benefitting from energy transition ● Decrease in carbon emission coefficients by suppliers
Energy efficiency improvement	● Promote process energy conservation and carbon reduction and equipment efficiency improvement activities ● Use energy-saving and high-efficiency equipment ● Process heat integration	● Continue to promote energy conservation and carbon reduction activities ● Continue to promote the heat integration project	● Continue to promote energy conservation and carbon reduction activities ● Expand introduction of intelligent management manufacturing
Circular economy	● Promote waste solvent recovery in the factory ● Low pressure waste heat recovered to be transformed into medium and high pressure stream for secondary process use	● Continue to promote resource recycling and reuse projects ● Promote the process heat recovery project	● Continue to promote low carbon and recycling material applications ● Continue to promote the process heat recovery project
Carbon Capture and Utilization	● Promote process CO_2 recovery	● Continue to develop process CO_2 recovery ● Work with industry and academia to study the construction of negative emission technology and process and its applications in industry	● Grasp and timely introduce international innovative carbon reduction processes
Renewable Energy Installation/Use	● Installation of solar power generation equipment ● Purchase of renewable energy	● Increase the installation of solar power equipment ● Expand the purchase of renewable energy	● Continue to add renewable energy generation facilities and increase the ratio of electricity used by renewable energy ● Grasp the development trends of forward-looking energy (geothermal, biomass, ocean energy) and energy storage equipment

2.3 GHG and Energy Management

DCC takes a proactive approach towards climate change, energy conservation, and carbon reduction challenges, and takes voluntary management actions. Given this, an energy conservation and carbon reduction meeting is held each quarter to adjust the implementation approaches with their effectiveness continuously tracked. In addition, the Safety & Health Department regularly monitors and follows up on changes in applicable regulations and proposes countermeasures. A GHG inventory is performed each year to ensure the effectiveness of energy conservation and carbon reduction in the current year, and plans for the following year are also proposed.

2.3.1 GHG Emission Management

According to the EPA's GHG inspection guidelines and operational control rights, factories of DCC in Taiwan must obtain a certification from a third-party verification entity, as well as statements for the certification by the end of August each year. The inventory results must be registered on the National Greenhouse Gas Registry Platform before the end of August each year. Factories in China conduct an annual GHG inventory in accordance with the "Guidelines for Accounting and Reporting Greenhouse Gas Emissions for Petrochemicals Production Enterprises in China" . In 2021, DCC began to initiate GHG Scope 3 inventories at our factories in Taiwan. The category for the inventory includes statistical categories: purchased goods and services, upstream transportation and distribution, downstream transportation and distribution, business travel, fuel and energy-related activities, waste generated from operations, as well as employee commuting. The Company will continue to make an effort to facilitate energy conservation and carbon reduction activities to reduce GHG emissions. Please see 2.3.2 Energy Conservation and Carbon Reduction Actions.

As a means to keep hold of the petrochemical industry's development status under the goal of low carbon emissions, DCC proactively takes part in the "Petrochemical Industry Working Group" by the Industrial Development Bureau and the "Petrochemical Industry Communication Platform" initiated by the Petrochemical Industry Associated of Taiwan. We will continue to work closely with government goals and communicate with the Industrial Development Bureau in the meetings regarding the industry's need for low carbon development.

To achieve this, the Company will take proactive measures in terms of the promotion of reduction measures, while also carrying out rolling reviews, including tracking energy consumption, GHG emissions and benefits of the reduction of each factory. At the same time, we will hold a quarterly energy conservation and carbon reduction meeting to review whether the Company's current carbon reduction measures have reached their target. A project team will be set up for evaluation and improvement for factories that fail to reach the targets.

In 2022, the total GHG emissions of the Group reduced by 20% compared to 2021. In addition to continuing to promote energy conservation and carbon reduction activities, the Group's overall carbon emissions in 2022 were lower compared to 2021 due to the economic climate that resulted in lower production capacity and energy consumption. Meanwhile, the carbon intensity in 2022 did not differ much from that in 2021. The Company's energy is supplied externally. To achieve its 2025 and 2030 carbon reduction targets, the Company will continue to promote energy conservation and carbon reduction activities and install renewable energy equipment, while also continuing to develop a green power purchase plan. The Company is also vowed to reduce its carbon emissions through low-carbon energy transition.

2020-2022 GHG Emissions

Unit: kt CO_2e

Factory	GHG Type	2020	2021	2022
Taiwan factories	Direct GHG Emissions (Scope 1)	440	402	198
	Indirect GHG Emissions (Scope 2)	2,074	2,547	1,344
	Other indirect GHG Emissions (Scope 3)	2021 Inventory began	2,842	1,952
Overseas Factories	Direct GHG Emissions (Scope 1)	206	171	129
	Indirect GHG Emissions (Scope 2)	736	886	721
Total Emissions (Scope 1 + Scope 2)		2,514	2,949	2,392
Net Sales (NT$ million)		49,561	118,966	103,371
Unit Sales Amount GHG Emissions (kt CO_2e/NT$ million)		0.051	0.025	0.023

Note 1: GHG emissions in Scope 1 include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and hydrofluorocarbons (HFCs); no other gases were emitted.
Note 2: GHG emissions in Scope 2 include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O); no other gases were emitted.
Note 3: Scope 1 and Scope 2 emissions cover factories in Taiwan and overseas; while Scope 3 emissions cover factories in Taiwan. The category for the inventory includes seven statistical categories: purchased goods and services, upstream transportation and distribution, downstream transportation and distribution, business travel, fuel and energy-related activities, waste generated from operations as well as employee commuting.
Note 4: The original self-conducted inventories for Scopes 1 and 2 for 2020 and 2021 have been revised to data after third-party verification.
Note 5: For data of overseas factories, only carbon dioxide (CO2) emissions were checked in China factories.
Note 6: The global warming potential (GWP) is based on the IPCC Fifth Assessment Report (2013).
Note 7: GHG emission factor: The calculation for Taiwan factories is based on the latest data released by the EPA during inventory. Grid emissions for China were based on the local power grid, while the rest of the emission were calculated based on the "Guidelines for Accounting and Reporting Greenhouse Gas Emissions for Petrochemicals Production Enterprises in China."
Note 8: For detailed information on each factory for 2022, please refer to Appendix B.

Renewable Energy Use Plan

With the energy transition around the world in full swing, each country's net zero targets have been announced. Given this, the Company will follow the green energy policy initiated by the Taiwanese government to take on the challenge for large electricity users and net zero carbon emission by proactively expanding solar power. In 2022, the total solar power generation was 685,000 kWh, which can reduce carbon emissions by 348 tCO_2e/year (using Taiwan's electricity coefficient of 0.509 $kgCO_2e$/kWh). With installation of 152 kW planned, 190,000 kWh of green electricity can be generated.

As required by the "Regulations for the Management of Setting Up Renewable Energy Power Generation Equipment of Power Users Above a Certain Contract Capacity", 150,000 kWh of green power to be purchased. In addition to fulfilling regulatory obligations, the Group also evaluates the feasibility of RE100 for the product supply chain and Taipei Executive Office. By continuing to make efforts towards clean energy, we at the same time fulfill stakeholder expectations and reduce corporate operational risks.

Factory	Installed Capacity	Planned Capacity (under installation)
Kaohsiung Factory	-	Solar Power: 152 kW (installation expected to be completed in August 2023)
Malaysia Factory	Solar power: 368 kW	-
Singapore Factory	Solar power: 180 kW	-

▲ Solar power installation at CCDSG

▲ Solar power installation at DCCM

Carbon Cost Management - Internal Carbon Cost System

Through building an internal carbon cost system, DCC effectively tracks changes in emissions to make further reductions. The system uses information such as the GHG inventory of each factory, fuel, electricity, steam, and process gas and liquid to establish emission coefficients, as well as activity data to calculate information of carbon emissions of each department. Moreover, an audit on the inventory is carried out each year by the Group to ensure that the information on carbon emissions of each department is close to the actual emissions. Furthermore, changes in emissions of each factory will be followed up on at the quarterly energy conservation and carbon reduction meeting to review and formulate carbon reduction strategies that are more effective. Subsequently, the Group will continue to keep a close eye on international trends and regulatory developments to ensure that its actions taken are aligned with the latest development.

Promotion of Product Carbon Footprint Inventory

In response to international climate issues and carbon reduction responsibility, DCC has begun to take inventory on product carbon footprints. Carbon emissions generated are analyzed and calculated from sourcing raw materials to the manufacturing process (including in-factory waste treatment). Carbon footprint inventory and training was extended to major products (a total of 20 categories) of the factories in Taiwan from the second half of 2022. The analysis from the inventory will serve as a basis for future evaluation on GHG emission reduction. In addition, based on the requirements of customers, ISO 14067 verification was conducted by a third-party entity with a certificate obtained. In 2023, we will continue to carry out external verification for the product carbon footprint while at the same time facilitating product carbon footprint inventory of the overseas factories. We will also plan education and training to strengthen our employees' understanding of ISO 14067 and TfS (Together for Sustainability) product carbon footprint guidelines to align with international policies and continue to reduce GHG emissions, improving product competitiveness.

Carbon Capture and Utilization (CCU)

As a means to achieve the global net zero goal, the Company is dedicated to developing Carbon Capture and Utilization (CCU) technology. CO_2 is recovered from pipelines and processes and is purified for reuse as products and raw materials. The Company has delivered related results, for example: CO_2 recovered from process reactions is purified for use as a raw material for acetic acid or as liquid CO_2 products for sale. This successful experience will facilitate the Company's promotion and development of other CCU technologies.

DCC's Carbon Capture and Utilization (CCU) Achievement

The Vinyl Acetate (VAM) and Allyl Alcohol (AAL) processes of the DCC Mailiao Factory, DCC Kaohsiung Factory, and CCDSG use the absorption method to capture a high concentration of CO_2 in the process. In 2022, the total carbon capture capacity of CCPG reached 110,000 tCO_2e/year, equivalent to the CO_2 absorption capacity of 307 Da'an Forest Parks. CO_2 captured is sold to customers as a finished product or supplied to CCPC's acetic acid plant as a raw material.

In 2023, the establishment of an industrial-grade liquid CO_2 recovery plant for the Allyl Alcohol (AAL) process at the DCC Dafa Factory is expected to be completed. When the process is fully loaded, 14,000 tons of CO_2 can be recovered. This will be used in the future to support the shortage of purified liquid CO_2 products at the CO_2 recovery plant of the DCC Kaohsiung Factory and DCC Mailiao Factory. As well as this, future carbon costs will be reduced and ESG image of the Company increased, realizing a three-win situation.

CO_2 Carbon Capture and Utilization Technology

Captured CO_2 Purified for Electronic-grade CO_2 Applications

At the Kaohsiung Factory, CO_2 is captured through process emissions and becomes electronic-grade CO_2 after purification. Electronic-grade CO_2 can easily penetrate into tiny pores (nano-level deep pores and small crevices) and smoothly dissolve hidden contaminants and bring them out. With the excellent solvent properties of liquid CO_2, CO_2 under normal temperature and pressure will exist in a gaseous state after use, making it residue-free after cleaning, which is an environmentally friendly dry cleaning process. Given this, electronic-grade CO_2 is extremely suitable for various types of precision and tiny holes such as nano-scale manufacturing in the semiconductor industry, and can replace the use of traditional highly toxic organic solvents.

Application for GHG offset project

From 2017, DCC has applied for a total of two GHG offset projects which were verified by the third-party verification entity and approved by the EPA, with a total of 222,970 tons of carbon dioxide equivalent carbon credits expected to be obtained. With the current application for carbon credits, the Company has obtained a total of 11,676 tons of carbon dioxide equivalent carbon credits. In 2022, the DCC Dafa Factory filed a second application for the "Thermal Boiler Fuel Modification" offset project, which has currently been approved by the EPA. With an additional 3,391 tons of carbon dioxide equivalent credits expected to be obtained, this will be used for the Company's carbon credits in the future.

2.3.2 Energy Conservation and Carbon Reduction Actions

Climate change has become a major challenge. As a responsible DCC, we deeply recognize the seriousness of the problem and take cautious, practical, and feasible approaches in tackling climate issues.
In a zero-carbon competitive environment, DCC stand firm and keep up with the global trends and the government' s energy conservation and carbon reduction policy. Furthermore, we have set short-, medium-, and long-term targets, while reinforcing planning and investment strength.
Each year, the factories continue to foster their energy conservation and carbon reduction measures in the processes, improve energy efficiency, proactively prevent environmental pollution, and reduce waste generation by properly using resources and strictly complying with the regulations while seeking breakthrough points for technology innovation.

DCC's energy conservation and carbon reduction target

Annual reduction of **3%** in the original unit consumption of water, and products that consume steam and electricity in each factory.

DCC's Energy Conservation and Carbon Reduction Promotion

Since the Energy Conservation and Carbon Reduction Promotion Organization was established in 2018, DCC's target has been to reduce the original unit consumption of products by 3% each year. The CCPG Executive Board Chairman Lin and Chairman Lin hold meetings in person to review the reduction operations for electricity, steam and water consumption in each factory.

In 2022, we conducted 25 energy conservation review meetings. The Head Office Energy Conservation and Carbon Reduction Team planned a series of energy conservation and carbon reduction activities and proposed a strategic roadmap divided into management, implementation, technology and inspection aspects. By taking this approach, we hope to strengthen the energy conservation and carbon reduction capabilities of our colleagues at the factories.

In order to encourage and motivate employees to participate in and contribute to company energy conservation and carbon reduction plans and activities, an incentive system is in place for energy conservation and carbon reduction proposals. This way, we are able to strengthen the awareness of energy conservation and carbon reduction among employees, further facilitating the implementation of the energy conservation and carbon reduction plans.

DCC was the first in the industry to fully implement the ISO 50001 Energy Management System. In 2022, all factories obtained third-party verification. Furthermore, we reduce carbon emissions through systematic energy management to continue to improve energy consumption and enhance its efficiency.

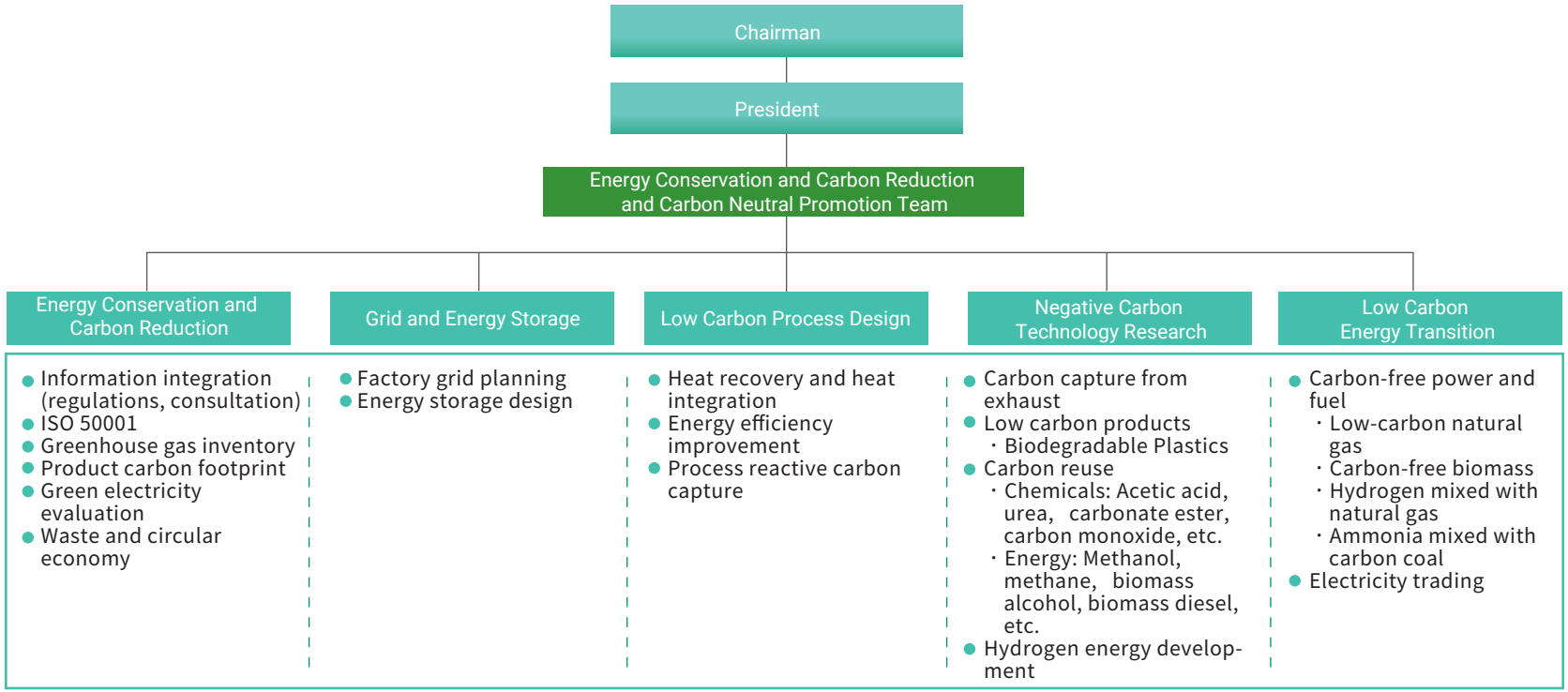
There were 78 energy conservation projects in DCC in 2022

Year	Number of Projects Completed	Actual Improvement Benefits			
	Project	Water Saving Ton/year	Steam Saving Ton/year	Electricity Saving MWh/year	Carbon Emissions Reduced Tons of CO_2
2020	84	307	143	14,103	49,267
2021	66	137	9	26,561	26,349
2022	78	2,098	85	20,943	36,385

Energy Conservation and Carbon Reduction and Carbon Neutral Promotion Organizational Structure

In 2018, the Energy Conservation and Carbon Reduction Promotion Team was established at the Head Office. For the past four years, the factories has been dedicated to improving the efficiency of energy use to reduce energy use costs. The Taiwan government has completed the third reading to the “Climate Change Response Act”, clearly stating net zero targets by 2050. Given this, DCC will further implement carbon reduction measures to make contributions to implementation protection and economic development.

With the support of senior leadership, DCC has instructed and expanded the functions of the Energy Conservation and Carbon Reduction Team. Coupled with its carbon neutrality planning, the organization’s internal emission reduction ability and efficiency is enhanced while building a good image and reputation for the Group in terms of sustainability.



Cooling Tower Energy Conservation Measures

In 2022, DCC saved 8.64 million kWh/year

spent NT$17,803,967/ year on investments,

reduced 3,812 tons of CO_2e/year

Hydraulic Balancing Analysis

Water balance analysis of the cooling tower was fully promoted to review the cooling water demand for the process. It was found that some cooling pump heads were too high, causing a waste of electricity. Therefore, we began to promote hydraulic analysis and measurement adjustment to confirm the optimal demand point of operating conditions. If the operating conditions are higher than the minimum demand after analysis, immediate improvements must be made to achieve energy saving of the cooling water system. After adjustment, the average energy efficiency can reach more than 40%, saving an considerable amount of electricity.
A new inverter was added to the circulating water pump in the VAE process of the DCC Kaohsiung Factory. The load of the circulating water pump was adjusted according to the design requirements of the return water pressure of the cooling tower. It was found that the load could be reduced by approximately 50% to meet the operation demand, saving an investment amount of the entire energy-saving project by NT$560,000, reducing power by approximately 440,000 kWh a year and 224 tons of carbon/year.

Through a hydraulic analysis carried out at CCDSG, we understood the actual cooling water demand and minimum return header pressure in the VAM process area. Motor speed and impellers were improved to reduce flow and lift. This has resulted in an average energy saving of 12,500 kWh per day. If 330 days of operation per year is used for calculation, this will save energy by 4,125,000 kWh and reduce carbon by 1,683 tons of CO_2e/year.

Chiller Energy Saving

A new hot water driven adsorption-type chiller was built at CCDSG to replace the old electric-driven chiller, which can save 1.116 million kWh of electricity and reduce carbon emissions by 455 tons of CO_2e/year.

2018-2022 Heat Integration of DCC Taiwan Factories

Item	2018	2019	2020	2021	2022
Steam Saving Capacity (ton/year)	-	189,059	-	6,142	15,282
Carbon Emissions Reduced (tons of CO_2e/ year)	-	21,422	-	1,606	4,273

Steam Recovered by Heat Integration

Optimization measures were conducted for steam headers in CCDSG. By adjusting the operating pressure, excess low-pressure steam is mixed with high-pressure steam, further reducing the use of steam.

After improvement, 11 tons of high pressure steam per hour can be reduced, saving 88,000 tons of steam per year and reducing carbon by 25,036 tons of CO_2e/year.

CCDPJ renovated its boilers by adding a new section of coal economizer waste heat recovery system to reduce the exhaust gas temperature and improve thermal efficiency. 2,100 tons of steam can be saved, reducing carbon emissions by 601 tons per year.

The heat integration project was carried out in the BDO, PTG, and LER processes at CCDPJ, saving approximately 4,400 tons of pure water, 1,260 tons of steam and 360 tons of carbon emissions per year.

2022 Energy Consumption Statistics

Unit: Gigajoule (GJ)

Source of Energy		
Fossil fuels	Diesel	32,916
	Natural gas	1,852,894
	Heavy oil/fuel oil	252,601
	Coal	-
	Externally purchased power	3,217,220
	Externally purchased steam	14,026,716
	Power sold to external parties	-
	Steam sold to external parties	78,610
Renewable energy	Renewable energy consumption (including wind energy, solar energy, biomass, etc.)	2,326
Total Energy Consumption		19,306,063
Self-generated energy	Self-generated steam	735,825
	Self-generated power	-
Renewable energy share		0.01%
Grid power usage percentage		16.66%

Note 1: For detailed information on each factory for 2022, please refer to Appendix B.
Note 2: Total energy consumption = diesel + natural gas + heavy oil/fuel oil + coal + externally purchased power + externally purchased steam - power sold to external parties - steam sold to external parties + renewable energy.
Note 3: The calorific value conversion coefficients calculated based on the unit calorific value tables of energy products by the Bureau of Energy, Ministry of Economic Affairs.
Note 4: Renewable energy share = renewable energy use/total energy consumption.
Note 5: Grid power usage percentage = Externally purchased power / total energy consumption usage.
Note 6: As the basis of data collection was adjusted, the adjustments for 2022 are used as the benchmark.

2.4 Water resources management

2.4.1 Water Consumption Management

Water Resources Management Strategy

1. Governance Structure

An energy conservation and carbon reduction meeting is convened on a quarterly basis, chaired by the Chairman and President. At the meeting, the progress of the Group-wide targets (for water recovery rate and rainwater recovery performance) and measurement management monitoring of each factory are reviewed.

2. Action Plan

- Achieve effective water consumption by reduction, replacement, and reuse.
- Establish, implement, and maintain water resource efficiency.
- Continue to improve water resource efficiency.

3. Target

- Water resource use and management must be in line with regulatory requirements and meet the environmental assessment commitment.
- To maintain the water recovery rate at 85% (inclusive) or above.

4. 2022 Performance Evaluation and Results

- DCC did not violate water pollution control-related regulations or standards.
- DCC's water recovery rate was 89%, meeting its target of 85% (inclusive or above).
- DCC's rainwater recovery performance was 172 megaliters (thousand cubic meters).

2020-2022 Water Resources Statistics

Unit: megaliters (thousand cubic meters)

Item		2020	2021	2022
Water Withdrawal	(+)Tap water	5,251	5,978	4,661
	(+)Reservoir water	-	-	-
	(+)River water	2,312	1,236	1,125
	(+)Groundwater	-	-	-
	(+)Rainwater	150	136	172
	(+)Externally Purchased Pure Water	818	956	816
	Total Water Withdrawal (A)	8,531	8,306	6,774
Total Recycled Water (B)		34,512	53,293	53,419
Rate of water recovery B/(A+B)		80%	87%	89%

Note 1: For detailed information on each factory, please refer to Appendix B.
Note 2: Total Water Withdrawal = tap water + Reservoir water + River water + Groundwater + Rainwater + Externally purchased pure water
Note 3: Rate of water recovery = Total Recycled Water/(Total Water Withdrawal + Total Recycled Water)
Note 4: There is no seawater in DCC water withdrawal items; all water withdrawal items are freshwater with total dissolved solids ≤ 1,000 mg/L.

2.4.2 Wastewater Management

Through the tiered management of wastewater sources, biological and chemical treatment of wastewater, the recovery and reuse of wastewater, and continuous monitoring system of effluent, effluent of DCC's factories is on par with laws and regulations, while reducing effluent discharge. In 2022, DCC's water consumption was 4,587 megaliters, a decrease of 1,443 megaliters from the consumption of 6,030 megaliters in 2021.

Effluent Continuous Monitoring

To strengthen effluent discharge monitoring and proactive management, an effluent continuous monitoring system has been set up at the wastewater treatment station of each factory. The system monitors water quality items such as water temperature, conductivity, pH, suspended solids (SS), chemical oxygen demand (COD), and heavy metals.

2020-2022 Water Discharge and Water Consumption Statistics

Unit: megaliters (thousand cubic meters)

Item	2020	2021	2022
(+)Surface Water	10	14	8
(+)Seawater	-	-	-
(+)Third-party Water	2,146	2,262	2,179
Total water discharge	2,156	2,276	2,187
Total water consumption	6,375	6,030	4,587

Note 1: For detailed information on each factory, please refer to Appendix B.
Note 2: Total water discharge = Surface water + Seawater + Third-party Water
Note 3: Total water consumption = Total water withdrawal - Total water discharge
Note 4: Effluent That Met the Discharge Standards: The Kaohsiung Factory, Dafa Factory, CCDPJ, DCCJS, and CCDSG discharged effluent into a sewage treatment plant; the Mailiao Factory discharged effluent into the Taiwan Strait; while DCCM is discharged into the Kim Kim River.
Note 5: There is no groundwater in DCC water discharge items; all water discharge items are freshwater with total dissolved solids ≤ 1,000 mg/L.
Note 6: Water discharge of the Mailiao Factory was recalculated according to the "Taiwan Stock Exchange Corporation Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies".

DCC Kaohsiung Factory

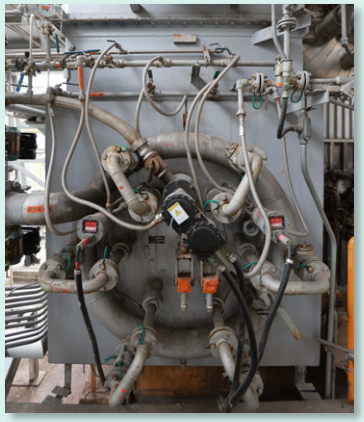
Received the "Excellent Water Conservation Performance Unit A Award" by the Water Resources Agency

- Water discharged from processes is recovered for washing scrubbers.
- Reactor spray water from processes is recovered for washing storage tanks.
- Water discharged from boilers and rainwater are recovered for replenishment in cooling towers.

Water-saving Effectiveness

39 megaliters of wastewater was recovered in 2022.

▲ 2022 Excellent Water Conservation Performance Unit A Award



▲ Boiler discharge recovery system

▲ Rainwater recovery system

▲ Director Lai Chien-Hsin of the Water Resources Agency giving the award to Director Huang Chien Zhong, representative of the Kaohsiung Factory

2.4.3 Water Resource Risk Management

DCC uses the water risk assessment tool of the World Resources Institute (WRI) to identify possible water resource stress faced by each factory at the base period (1960-2014). The results are as follows:

Low risk (less than 10%)
Factories in Taiwan, Malaysia Factory, CCDSG

Low to moderate risk (10–20%)
Jiangsu Factory

High risk (40–80%)
CCDPJ. Relevant information is provided as follows:

No water scarcity occurred in 2022 at any of DCC's factories, and each factory continues to prevent the possible impact in the event of water scarcity through good water management. Located in a high-risk water stress area, CCDPJ's continuous objective is to increase the use of recovered water to replace water, relieving itself from depending on natural water resources.

In 2022, water withdrawal was 775 megaliters, a decrease of 973 megaliters from the 2021 withdrawal of 198 megaliters.

2020-2022 Water Source Stress Area Information

Unit: megaliters (thousand cubic meters)

Category	Item	CCDPJ		
		2021	2022	2022
Water Withdrawal	(+)Surface Water	4	13	18
	(+)Groundwater	-	-	-
	(+)Seawater	-	-	-
	(+)Third-party Water	868	960	757
	Total Water Withdrawal (A)	872	973	775
Water Discharge	(+)Surface Water	-	-	-
	(+)Groundwater	-	-	-
	(+)Seawater	-	-	-
	(+)Third-party Water	252	287	272
	Total water discharge (B)	252	287	272
Water Consumption	Total water consumption (A-B)	620	686	503

2.5 Air pollutant emission management

Management Approach for "Air Pollutant Emission Management"

Meaning of Material Issues	Being able to provide a healthy living environment with clean and fresh air is the motivation for us to keep on promoting the improvement of air pollution.
Policy and Commitment	At DCC, we keep a close eye on domestic and foreign regulatory requirements. Coupled with autonomous monitoring and management, the "effective reduction of pollution sources and optimization of prevention equipment" approach has been adopted, which is used as the basic standard for improving air pollution emissions.
Responsibility Target	● Responsibility: The Air Pollution Emission Department of each factory is responsible for reducing air pollution emissions, and is supervised and assisted by the Safety & Health Department and President's Office of the Taipei Company. ● Target

KPI	Short-term Target (2023)	Medium-term Target (2025)	Long-term Target (2030)
2021 is the base year for emissions SOx: 6 metric tons NOx: 109 metric tons VOCs: 149 metric tons	SOx: Reduce 8% NOx: Reduce 20% VOCs: Reduce 17%	SOx: Reduce 10% NOx: Reduce 25% VOCs: Reduce 20%	SOx: Reduce 15% NOx: Reduce 30% VOCs: Reduce 25%

Action Plan	● Formulate and review technological feasibility and regulatory compliance. ● Convene and set up project teams in each factory to promote and implement projects. ● Review and follow up the improvement progress and effectiveness of projects

2022 Implementation Result	KPI	Achievement for 2022
	SOx: 6 metric tons NOx: 109 metric tons VOCs: 149 metric tons	NOx: 5 metric tons, down 8% from base year NOx: 88 metric tons, down 19% from base year VOCs: 126 metric tons, down 15 from base year

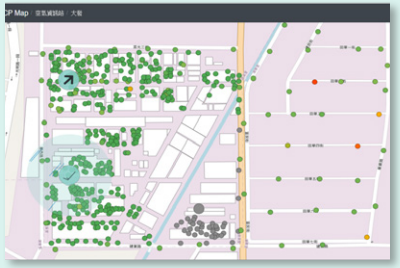
Communication/ Grievance Mechanism	Communicate or file a grievance via customer hotline, DCC website - Contact Us, or email.

DCC is dedicated to air pollution reduction. In addition to adopting the best available control technology, DCC continues to promote various reduction measures that are better than current regulations including zero emissions from combustion towers and additional pollution prevention and control equipment. At the same time, we ensure the smooth operation of air pollution prevention and control facilities through counseling and education and training. In addition, we work with external professional teams to conduct VOCs and hazardous air pollutants fugitive monitoring, testing, and pollution traceability during the annual maintenance period and process shutdown phase, ensuring that emission standards are met to contribute to improvement and reduction at the source. DCC air pollution improvement results are described as follows:

1. VOCs Multi-layer Autonomous Management and Prevention Measures

DCC Dafa Factory is located close to schools and communities. In an effort to prevent odors from affecting the nearby residents, multi-layer prevention measures have been adopted for VOCs while also continuously reinforcing pollution prevention management. The measures include: visualization of VOC detector management, regular inspection of emission pipes, stricter control of equipment components, and routine inspection inside and outside the factory. This way, the Factory is able to detect abnormalities early and make improvements immediately, minimizing environmental impact. Furthermore, aside from regulatory requirements, the factory has also tightened various control measures. For example, in terms of the management of equipment components, the inspection frequency has been enhanced from quarterly as required by law to monthly, and infrared gas detector inspections have also been added. The definition of equipment component leakage has been enhanced from 1,000 ppm as required by law to 100 ppm, and immediate improvement is made once a leak is detected. Situations concerning leaks and repairs are followed up at the routine daily meeting. The effectiveness of the implementation is reviewed at the monthly management meeting.

▲ Autonomous inspection of equipment components

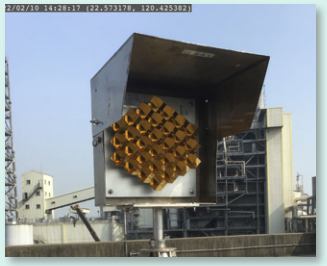


▲ Visualization of VOC detector management (CCP MAP)

2. Traceability Tracking and Improvement of VOCs During the Maintenance Period

As a means to effectively grasp the fugitive state of VOCs and pollution sources during the process maintenance period, DCC joined forces with ITRI to use Open-Path Fourier Transform Infrared (OP-FTIR) to monitor the process during the annual process maintenance. Through the pollutant concentration time series change and wind speed and direction, together with the work log to trace the source of pollution, we are able to identify the source of pollution. The process personnel then proposed measures for improvement to prevent recurrence.

▲ Open-Path Fourier Transform Infrared Emitter



▲ Open-Path Fourier Transform Infrared Receiver

3. Flare Pilot Light Fuel Replacement

Situated in the No. 6 Naphtha Cracker Industrial Park, the DCC Mailiao Factory has no natural gas supply source, so the pilot light of the 1,4-butanediol process combustion tower uses ethylene as fuel. Given this, taking into account environmental considerations and reducing ozone precursor emissions, the pilot light fuel was changed to process waste gas (50-60% H_2, CO, CH_4) to replace ethylene, reducing ethylene by 40,000Nm^3 per year.

▲ Flare Pilot Light Fuel Replacement

2.6 Waste management

At DCC, we are committed to the improvement of operations and technologies of all processes in order to reduce waste generation. By switching to renewable low-polluting raw materials, advocating industrial waste reduction and resource sustainability, and continuing to develop waste resource recovery technologies, not only are we able to reduce waste generation, waste disposal costs are at the same time lowered. This way, we are in line with the spirit of sustainability while also improving the efficiency of resource utilization.

2022 Waste Statistics

Unit: Tons

Item	
General Business Waste Output	2,314
Hazardous Business Waste Output	19,533
General Business Waste Recovery Rate (%)	40.2%
Hazardous Business Waste Recovery Rate (%)	55.27%
Waste Recycling Rate (%)	53.7%

2020-2022 Air Pollutant Emissions

Unit: metric tons

Item / Year	2020	2021	2022
Nitrogen Oxides (NOx)	195	173	130
Sulfur Oxides (SOx)	9	12	12
Volatile Organic Compounds (VOC)	334	299	258
Particulate matter (PM)	10	11	8

Note: For detailed information on each factory for 2022, please refer to Appendix B.
Note: Errors in emission statistics for some factories in 2020 and 2021 were corrected in this year's report.

2022 Waste by Disposal Method

Item		General Business Waste	Hazardous Business Waste
Recycled Waste Generation	Recycling	929	10,797
Non-recycled Waste Generation	By Landfilling	444	79
	By Incineration	845	8,456
	Other Means	96	200

Note 1: Total General Business Waste Treated Through Other Methods: Heat treatment, solidification treatment, physical treatment, chemical treatment
Note 2: Total Hazardous Business Waste Treated Through Other Methods: Heat treatment and high-temperature wet oxidation treatment.
Note 3: For detailed information on each factory for 2022, please refer to Appendix B.
Note 4: As the basis of data collection was adjusted, the adjustments for 2022 are used as the benchmark.

2022 Waste by Disposal Site

Item		General Business Waste	Hazardous Business Waste
Onsite	Directed to Disposal	-	7,542
Offsite	Disposal Transfer	930	3,254
	Directed to Disposal	1,384	8,736

Note 1: According to GRI 306:2020, the definition of disposal transfer includes preparation for reuse and recycling. Waste of DCC will not be reused.
Note 2: According to the definition of GRI 306:2020 directed to disposal includes incineration (with energy recovery) and landfilling and other disposal operations.

DCC 2022 Process Gas-Liquid Energy Recovery

Unit: metric tons

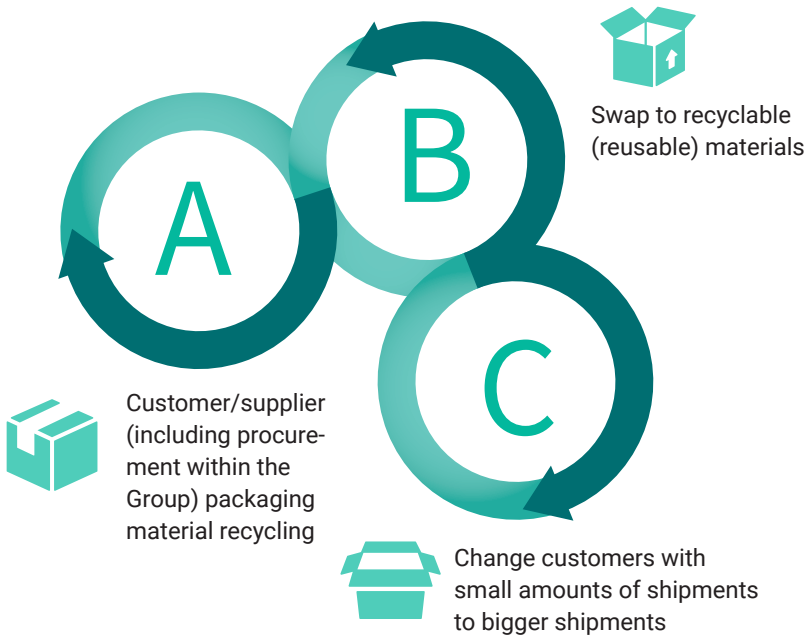
Process Gas Liquid Recovery Volume **100,700**

Note 1: Process gas liquid recovery is the volume of the fuel input for energy recovery in the process.
Note 2: As the basis of data collection was adjusted, the adjustments for 2022 are used as the benchmark.

Packaging Material Reduction and Recycling

Packaging material reuse

DCC's raw materials and products cover a variety of packaging materials and transportation methods. Whether these materials are for friendly factories within DCC, suppliers, or customers, we continue to assess appropriate transportation and packaging methods hoping to reuse the materials under the circumstances that they meet all the requirements of the customer. This approach not only conserves resources, but also helps protect the environment. Improvements are divided into three types:



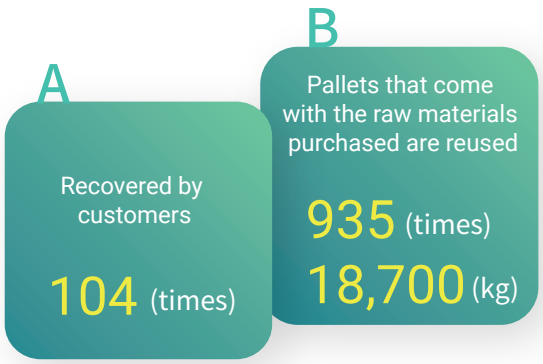
2022 Summary of Implementation Result on the Reuse of Packaging Materials - by Company

Improvement Type	Region	Target	Packaging Materials/ Implementation Method	Recycling (reduction) amount each year
A	Taiwan	In the Group	Plastic barrels recycling	1,947
			Iron barrel recycling	457
			Recycling of bulk bags	1,413
	DCCJS	Customers	Recycling of bulk bags	2,000
	CCDSG	In the Group	Carboys bottle recycling	2,576
			IBC barrel recycling	228
			Recycling of bulk bags	1,076(KG)
			Paper bag recycling	1,753(KG)
B	CCDSG	Customers	IBC barrel recycling	557
	DCCM	Customers	IBC barrel recycling	310
C	DCCM	Customers	ISO tank	771 (times)

While we continue to promote recyclable packaging materials, we also take into account the safety of packaging to ensure that products are safely stored during shipping and storage. we will continue to seek innovative packaging materials and shipping methods. At the same time, through measures including factory unloading, conveying and storage of equipment, and automation, we are able to reduce the use and consumption of packaging materials, thus helping to protect the environment.

Pallet Recycling and Reuse

The appearance and specification of the used pallets are evaluated. If they meet the reuse criteria, these pallets are recovered for reuse: A. recovered by customers, B. pallets that come with the raw materials purchased are reused. By doing so, we hope to reduce the consumption of resources and energy, achieving the goal of protecting the environment.



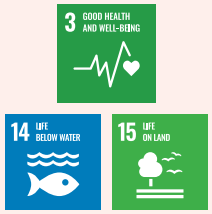
CH3 Common Good

"Talent" has always been the foundation of DCC's sustainable operations. Through suitable and functional management policies, comprehensive education and training, and employee assistance programs (EAPs), we have created an inclusive system for selecting, nurturing, employing, and retaining talent. We have also extended the program to employee physical and mental health management, providing a friendly workplace and bringing our employees together while deepening their sense of unity. Moreover, we also continue to interact with community organizations to strengthen local relations. Not only do we donate funds and supplies, we also organize a variety of social welfare activities, hoping that through these we are able to do what we can to contribute to society.

Corresponding Material Sustainability Topic

- Chemical safety
- Occupational health and safety
- Response and management of major incidents

	KPI	Achievement for 2022	Short-term Target (2023)	Medium-term Target (2025)	Long-term Target (2030)	Corresponding SDGs
Factory emergency response strengthening and information management	Funds invested and each drill session	Spent NT$1,456,000 and conducted six drills/training sessions with CCPG	Over NT$600,000 is invested each year Conducted more than three drills/training sessions with CCPG			8 DECENT WORK AND ECONOMIC GROWTH
	DCC (Taiwan factories) Accumulated number of training sessions for professional responders	77 trainees/sessions	84	129	240	
Occupational health and safety (risk management improvement and enhancement)	Number of process safety incidents	Tier 1: 2 process safety incidents Tier 2: 2 process safety incidents	Tier 1: no greater than 1 incident Tier 2: no greater than 4 incidents	Tier 1: no greater than 1 incident Tier 2: no greater than 3 incidents	Tier 1: no greater than 1 incident Tier 2: no greater than 2 incidents	8 DECENT WORK AND ECONOMIC GROWTH
Occupational safety and health (effective measurement of special operations that pose health risks)	Improvement planning and cases implemented in accumulated high potential risk environment in Taiwan factories (>1/10 allowed concentration standard)	Improvement planning and cases implemented in high potential risk environment (>1/10 allowed concentration standard): 1 case	3cases	5cases	10cases	8 DECENT WORK AND ECONOMIC GROWTH
Labor relations and benefits	Organize multi-faceted activities for the Group and stakeholders to deepen the corporate culture	Completed blood donation campaign, beach cleanup, EMBA call for papers, Shu-Ren Award, running, Painting CCPG (ball games were canceled due to COVID-19)	Organize annual multi-faceted activities for the Group and stakeholders to deepen the corporate culture. (gradually extend to overseas companies and contractors, suppliers)			8 DECENT WORK AND ECONOMIC GROWTH 14 LIFE BELOW WATER 15 LIFE ON LAND
	Turnover rate of Taiwan factories of 4% (or less) (excluding employees duly retired and employees involuntarily resigned due to intra-group job transfer)	Turnover rate of Taiwan factories of 2.6%	Turnover rate of Taiwan factories of 4% (or less)			

	KPI	Achievement for 2022	Short-term Target (2023) / Medium-term Target (2025) / Long-term Target (2030)	Corresponding SDGs
Labor rights	Legal compliance and human rights training completion rate	100%	Remain 100% every year (Excluding new hires within the previous three months, those on unpaid parental leave, and those injured or ill)	
Talent attraction and cultivation	Ratio of new/updated resumes on the Company's official website (2022 as the base year) • Achievement rate of 95% and more for planned manpower needs • Achievement rate of 90% and more for non-planned manpower needs	More than 1,500 resumes were newly added/updated on the Company's official website • Achievement rate of 100% for planned manpower needs • Achievement rate of 96% for non-planned manpower needs	Maintenance of a ratio of 10% (or more) of new/updated resumes on the Company's official website each year Maintained each year • Achievement rate of 95% and more for planned manpower needs • Achievement rate of 90% and more for non-planned manpower needs	
Community involvement and community care	Social welfare events participated	62cases	Propose long-term and continuous public welfare events and integrate company resources for social investment and feedback	

3.1 Talent Deployment

Rich professional knowledge, a passionate work attitude, and an honest and sincere behavior are the code of conduct for all DCC's employees. They are also the greatest keys to DCC's multiplied growth. Therefore, designing a flexible, diverse, and heartwarming talent management system and human resources development policy is our goal for continuous improvement.

3.1.1 Human Rights Policy

DCC adhere to human rights standards and initiatives such as the Universal Declaration of Human Rights (UDHR), United Nations Global Compact (UNGC), United Nations Guiding Principles on Business and Human Rights (UNGPs), Declaration on Fundamental Principles and Rights at Work of the International Labour Organization (ILO), and Responsible Business Alliance (RBA). In addition, DCC continue to comply with laws and regulations in the global locations of operation. Furthermore, we have formulated a Human Rights Policy. The spirit of human rights is deeply rooted in the Company's core value in order to fulfill our basic commitment as an enterprise. DCC also request our supply chain partners to follow the same commitment.

Employees

The Human Resource Department is responsible for day-to-day human rights issues and ensures that the internal regulations such as collective bargaining agreements, work rules, as well as the "CCPG Preventive and Remedial Measures for Child Labor" and "CCPG Procedures for Prohibition of Forced Labor" are in line with human rights policies and standards.

DCC Human Rights Issues Management Mechanism

Suppliers/Contractors

The "CCPG Supplier Code of Conduct", established by the Procurement Department, must be signed by our suppliers and they must comply with the "labor and human rights" provisions. Copper suppliers are required to sign the "Pledge to Comply With CCPG Due Diligence Investigation Management Policy for Mineral Supply Chain Responsible Sourcing" and comply with the relevant regulations.

DCC Education and Training on Regulatory Compliance and Human Rights

As a means to implement the human rights policy, DCC fosters "education and training on regulatory compliance and human rights" as an annual mandatory course for employees. The completion rate for 2022 was

100%

2022 Education and Training on Legal Compliance and Human Rights - Employee Training Completion Percentage

Management Role	Non-management Role
100%	**100%**

Note 1: Management Role - entry-level manager (inclusive) and above; Non-management Role - general employee.
Note 2: Employees who had not completed human rights-related education and training were mainly those on unpaid parental leave, newcomers, or consultants, and completed their education and training after the system authorization became effective.
Note 3: For detailed information on each factory for 2022, please refer to Appendix C.

	Human Rights Issues	Risk Assessment and Audit	Mitigation and Remedial Measures	Grievance Channel
Employees	Prohibition of child labor and protection of the rights of underage workers	Through the labor human rights risk assessment form and ISO 45001 system, we regularly review potential risks and take countermeasures according to the current internal and external environment and relevant regulatory requirements. At the same time, we ensure that relevant issues are in line with regulations through internal audits and continue to make improvements.	• CCPG Preventive and Remedial Measures for Child Labor	Grievance Email: CCPGHR@ccpgp.com Grievance Telephone: +886-2-7701-8936
	Freedom of employment		• Implement the CCPG Procedures for Prohibition of Forced Labor. • Organize labor-management meetings to facilitate communication and understanding.	
	Working hours, wages and benefits		• Comply with laws and regulations associated with working hours. Immediate improvement and review will be carried out in the event of a violation. • Reinforce a labor-management communication and dialogue mechanism. • Take in the opinions of employees in organizing various hiking and recreational activities. • CCPG Good Mood Hotline • Procedures for Childbirth Incentives and Childcare Subsidies. • The Self-appropriation of 6+1 New Pension System Reward Program	
	Human treatment		• Implement workplace sexual harassment prevention measures and procedures for grievances and disciplinary actions. • Sexual harassment control and prevention-related training.	
	Diversity and anti-discrimination		• Outline an application form for religious activities for all employees. • Increase the total number of employees with disabilities. • Encourage each department to hire diverse talent.	
	Freedom of association and collective bargaining		• Reinforce a labor-management communication and dialogue mechanism. • If there is a change in labor conditions, a coordination meeting will be held separately.	
	Occupational health and safety		• Occupational health and safety training. • Resident medical staff to provide onsite health-related services. • Develop management tools to improve management immediacy. • Health Management Promotion Program • Organize health seminars.	

	Human Rights Issues	Risk Assessment and Audit	Mitigation and Remedial Measures	Grievance Channel
Contractors	Occupational health and safety	● Potential risks are identified and corresponding measures taken on a periodic basis according to the "Identification and Risk Assessment for Safety and Health Hazards" and the "Procedures for Contractor Evaluation". ● Regularly perform safety and health inspections to ensure that relevant operations are in line with the regulations and continuously improved. ● Contractors must perform a Job Safety Analysis (JSA) before performing dangerous operations to prevent operational safety risks.	● If there is an issue found during the safety and health inspection, immediate improvement or suspension of operation will be required until improvement is made. ● Regularly convene a contractor agreement organization meeting, and perform daily safety inspections before, during, and after the daily operation and identify the environmental hazards and preventive matters. ● We have established emergency preparedness and response plans to prevent and eliminate possible damage to personnel, equipment, and property.	Grievance Email: CCPGHR@ccpgp.com Grievance Telephone: +886-2-7701-8936

	Human Rights Issues	Risk Assessment and Audit	Mitigation and Remedial Measures	Grievance Channel
Transport Supplier	Working Hours	● Regularly review work reports and dashboard cameras of drivers to ensure labor regulatory compliance.	Transport suppliers must perform the following: ● Set up a suggestion box and engage in regular communications so that drivers are able to reflect any work arrangement problems at any time.	Grievance Email: CCPGHR@ccpgp.com Grievance Telephone: +886-2-7701-8936
	Occupational health and safety	● Transport suppliers are required to track drivers for occupational diseases and regularly care for the state of their health. ● Onsite inspection to check whether the personnel operating environment is in line with the requirements.	Transport suppliers must perform the following: ● Drivers are required to see the doctor according to the health checkup report and attach proof, which will be included in employee performance appraisals. ● Additional lounge in workplace. ● Increase the inspection items and review mechanism of PPE in the parking lot and onboard vehicles. ● Vehicles equipped with Advanced Driver Assistance Systems (ADAS). ● Vehicle equipped with a real-time tire pressure and temperature monitoring system.	

	Human Rights Issues	Risk Assessment and Audit	Mitigation and Remedial Measures	Grievance Channel
Suppliers	Working hours, wages and benefits	ESG risk assessment is conducted mainly for raw material suppliers. After two stages of assessment, medium and high risk suppliers are scheduled to be included. Through on-site visits and exchanges, advice will be given from all aspects and improvements required within a deadline to track effectiveness For more details, please see 1.3.1 Responsible Sourcing.	● Regular tracking of deficiencies and ensure that suppliers make improvements. ● Carry out education and training requirements on human rights issues in relation to child labor, forced labor, and conflict minerals.	Grievance Email: CCPGHR@ccpgp.com Grievance Telephone: +886-2-7701-8936
	Prohibition of child labor and protection of the rights of underage workers			
	Occupational health and safety			

	Human Rights Issues	Risk Assessment and Audit	Mitigation and Remedial Measures	Grievance Channel
Suppliers	Responsible Mineral Sourcing	Conflict Minerals Due Diligence: ● CMRT (Conflict Minerals Reporting Template) & Cobalt Reporting Template (CRT). ● In Good Delivery List announced by LBMA (London Bullion Market Association). ● On-site audits for first-tier suppliers. Copper Supplier Due Diligence: ● Conduct the identification process for Conflict Affected and High Risk Areas (CAHRAs) and the red flag warning signal identification process. ● On-site audits for first-tier and second-tier suppliers.	● Regularly track deficiency improvement and risk mitigation plans to ensure suppliers are compliant. ● Conduct copper due diligence system education and training each year to boost supply chain due diligence capabilities. ● Upon completion, an annual "Copper Due Diligence Report" is released.	Conflict Minerals Grievance: Grievance Email: ccpgaudit@ccp.com.tw, CCPGLG@ccp.com.tw Copper Due Diligence Grievance: **Miaoli Factory** ● Grievance Email: cu_diligence_ml@ccpgp.com ● Grievance Telephone: +886-2-2503-3371 **Panjin Factory** ● Grievance Email: cu_diligence_pj@ccpgp.com ● Grievance Telephone: +86-427-677-5001 #835 **Changshu Factory** ● Grievance Email: cu_diligence_js@ccpgp.com ● Grievance Telephone: +86-512-5236-8282

Channels for Filing Grievances or Raising Concerns

We have set up multiple, anonymous formal channels for filing grievances or raising concerns regarding human rights issues as described above. After the receipt of information, the relevant department will proactively conduct an investigation and review existing procedures according to the statement made for continuous improvement. In addition, if the grievance filed is proven, the person responsible will be held accountable according to the internal regulations and applicable laws and regulations. For 2022 grievance-related information, please see "Introduction".

Whistleblower Protection:

DCC committed to ensuring that the identity of any person who makes a query or files a grievance on a concern or needs assistance on this policy will be treated in the strictest confidence. CCPG strictly prohibits retaliation against those who report potential or actual violations in good faith, or those who participate in the investigation of violations.

3.1.2 Composition of Talent

100% of workers are hired locally in all bases in Taiwan

CCPG welcome high quality and diverse talent to join us as they are our foundation to respond to international competition. Our outlets fully demonstrate our determination to attract and recruit talented people including: participation in university recruitment briefings, industry-academia research projects, summer internships, industry-academia cooperation, and special industry-academia classes, as an alternative to military service.

In 2022, a total of 76 recruitment events were conducted in factories in Taiwan to supplement the manpower needs of units within the factories. At the same time, we also actively took part in various campus recruitment events and carried out direct interaction with students. As well as this, we organized several special briefings at individual departments in universities, totaling 12 campus recruitment events, with 3,050 participants and 1,500 new resumes received in the month. This way, students will get to know more about chemical factories and DCC.

Since 2022, we have planned a new scholarship evaluation system targeting talented chemical, mechanical, and instrumentation students. CCPG has worked with many universities in Taiwan and provided scholarships (10 students per year for NT$200,000 each) to develop future talent in the industry.

Renda Industrial Park and Renwu Senior High School Established an Industry-Academia Strategic Alliance

In order to promote the link between the campus and the petrochemical industry while at the same time developing future talented people who are interested in the chemical industry, the Ren Da Industrial Park Service Center, together with petrochemical companies in Dashe and Renwu established an industry-academia strategic alliance with Renwu Senior High school and jointly sponsor the specialized petrochemical class at Renwu Senior High School. Aside from providing students with internship opportunities, the vendors also arrange internal instructors and hire university professors to give lectures to the students. Each year, students of the specialized international petrochemical class are provided with opportunities to study off-site. Through the specialized industry-academia course, knowledge in chemical-related fields can be accumulated from high school, increasing the possibility of future chemical talent choosing to work at CCPG.

In 2022, Panjin Factory conducted its talent recruitment program for talent from Dalian University of Technology and Shenyang University of Technology

In 2022, Panjin Factory organized two recruitment events by university-company cooperation, mainly at Panjin campus of Dalian University of Technology and Shenyang University of Technology, to strengthen the communication between university and company, promoting company talent recruitment and introduction program.

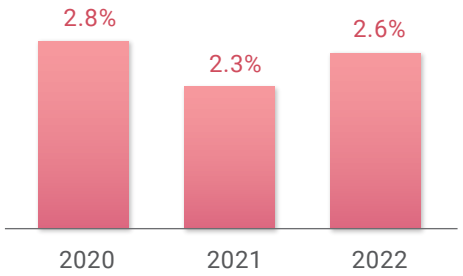
In 2022, 4 online recruitment events were organized by Panjin Factory, receiving more than 100 resumes.

At DCC, we emphasize on the localization of talent. 100% of workers are hired locally in all our bases in Taiwan and we give priority to hiring local residents. 85% of workers in the Dafa Factory and Kaohsiung Factory are locals while 95% of workers in DCCJS and DCCM are locals.

Due to the characteristics of the chemical raw material manufacturing industry, the overall number of male employees is higher than the number of female employees at DCC. The number of domestic and overseas employees is increasing at a stable rate for the past three years. The number of female employees in 2022 also grew by more than 7%. In terms of employee composition, the majority of our employees are aged 30-50; the average age of all employees is 40; and the average length of service is approximately 13 years. Our manpower structure is young with rich experience and strength, and 100% of our management comes from the grassroots level of the Company.

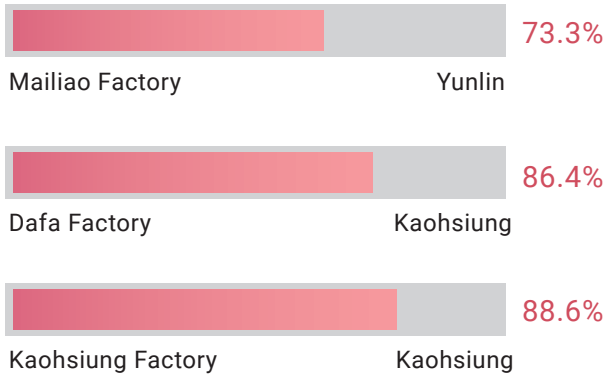
Excluding involuntary departures, such as retirement and in-Group transfers, the overall employee turnover rate in DCC's Taiwan factories in 2022 was 2.6%, decreasing year on year and better than the average rate in the industry. Aside from conducting interviews to find out the reason for employees' departure for evaluation to make improvements, the Company will continue to promote its welfare measures (see 3.3 Employee Benefits) to create a benchmark for a happy company.

Turnover Rate of DCC for the Past Three Years

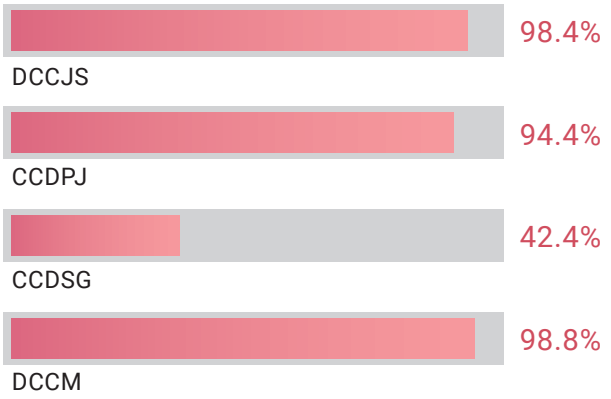


Note: excluding employees duly retired and employees involuntarily resigned due to intra-group job transfer)

2022 Percentage of Local Employees in Taiwan Factories



2022 Percentage of Local Employees in Overseas Factories



2020-2022 Workforce Composition

Unit: Number of People

Contract Type		Region	2020		2021		2022	
			Male	Female	Male	Female	Male	Female
Employees on fixed-term contracts	Part-time employees, contract drivers, consultants	Taiwan	4	4	9	5	11	5
		Overseas and expatriates	0	0	0	0	51	5
		Subtotal	4	4	9	5	62	10
Non-fixed term Contract	Other employees	Taiwan factories	855	65	844	72	858	85
		Overseas factories and expatriates	564	130	542	136	499	135
		Subtotal	1,419	195	1,386	208	1,357	220
Total			1,423	199	1,395	213	1,419	230

Note 1: The employees on fixed-term contracts listed in this table refer to employees classified as temporary employees according to the definition of GRI 2-7:2021. The non-fixed term contract refer to employees classified as permanent employees and full-time employees according to the definition of GRI 2-7:2021.
Note 2: DCC does not have part-time employees or non-guaranteed hours employees as defined in GRI 2-7:2021.

DCC 2022 Number of Contractors

7,646 人

Note: The calculation was based on the entry records of the system, and only one person was counted when he/she repeatedly entered the factory in the current year.

2020-2022 DCC Employee Age Distribution

Unit: Number of People

Age Distribution	2020		2021		2022	
	Management	Non-management	Management	Non-management	Management	Non-management
Under 30 years old	1	239	1	197	1	193
30-50 years old	108	1,113	109	1,124	106	1,162
Over 50 years old	55	106	55	122	56	131
Total	164	1,458	165	1,443	163	1,486

2020-2022 DCC New Employee Age Distribution

Unit: Number of People

Age Distribution	Region	2020		2021		2022	
		Male	Female	Male	Female	Male	Female
Under 30 years old	Taiwan	15	6	15	9	50	13
	Overseas	36	3	21	4	35	4
30-50 years old	Taiwan	2	2	7	0	18	3
	Overseas	26	6	11	8	39	8
Over 50 years old	Taiwan	0	0	0	1	2	0
	Overseas	1	1	3	2	0	3
Total		80	18	57	24	144	31

2020-2022 DCC Age Distribution of Employee Departures

Unit: Number of People

Age Distribution	Region	2020		2021		2022	
		Male	Female	Male	Female	Male	Female
Under 30 years old	Taiwan	9	4	9	2	8	3
	Overseas	20	3	21	2	23	2
30-50 years old	Taiwan	16	1	16	2	0	0
	Overseas	23	2	23	7	38	5
Over 50 years old	Taiwan	10	1	10	0	0	0
	Overseas	1	3	1	0	5	1
Total		79	14	80	13	74	11

Note: The number of employee departures includes retirements, redundancies, deaths, part-time workers/consultant without renewal of contracts, and inter-company transfers within the Group.

2020-2022 DCC Employee Job Rank Distribution

Unit: Number of People

Rank	2020		2021		2022	
	Male	Female	Male	Female	Male	Female
Executive	9	0	9	0	9	0
Senior manager	25	1	22	1	18	0
Mid-level manager	36	4	40	4	32	1
Junior manager	75	14	75	14	83	20
General employees	1,278	180	1,249	194	1,277	209
Total	1,423	199	1,395	213	1,419	230

In 2022, the percentage of promoted senior managers from local areas in Taiwan was 100% and 22.2% in overseas factories. The Company conducts all-around management competency training to cultivate top-notch local cadres.

2022 Senior Management Distribution

In 2022, DCC hired six people with disabilities in an attempt to protect the rights of those with physical or mental disabilities, creating a friendly working environment. Due for retirement, employees were transferred into a consulting role according to their area of expertise. In 2022, we hired 5 retired employees as consultants. These consultants are asked to attend a number of project meetings to offer their professional advice, or go to the production site to provide guidance and carry out internal departmental education and training. By doing this, they are able to contribute valuable knowledge and pass on their experience to further strengthen CCPG.

2020-2022 Employee Diversity Distribution

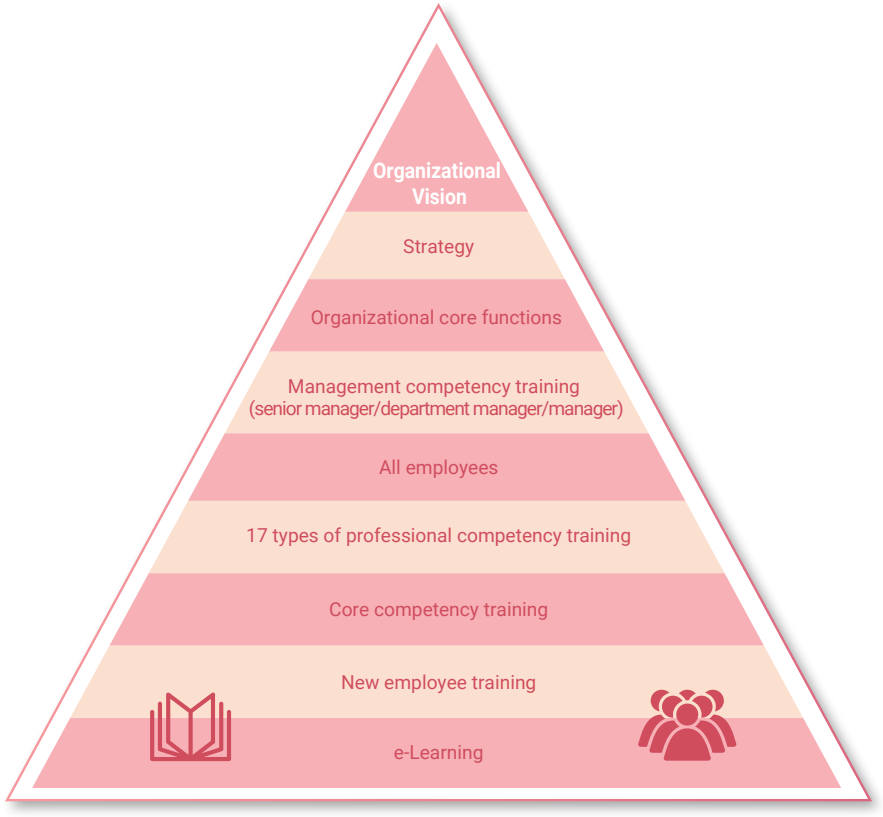
Unit: Number of People

Diversity	2020		2021		2022	
	Management	Non-management	Management	Non-management	Management	Non-management
People with disabilities	1	3	1	3	1	5
Percentage of people with disabilities	0.6%	0.2%	0.6%	0.2%	0.6%	0.3%

3.2 Talent Cultivation and Development

Talent capital is the foundation of a company's sustainability. DCC's success is based on the continuous gathering and development of high quality talent. We follow the six core competencies set by the CCPG in 2016 and expect each employee of DCC to have the same common cultural notion, the same code of conduct, and a consistent concept of value. We have formed an HR Development Committee, with the President serving as the Chair, and discussions and planning are carried out with the Human Resource Department regarding issues of selection, education, employment, and retention.

We have an education and training system in place developed with the Group's development vision, and we look forward to working with each and every employee to grow together, further achieving the organization's goals. DCC's education and training system is developed as the below chart.



With the adoption of the three directions: "depth" , "breadth" , and "height" , we carry out employee rotation and development training. The specific operations are "rooted in cultivation" , "cross-departmental expansion" , and "executive nurturing" . "Rooted in cultivation" aims to improve the overall professional quality of colleagues through stringent and precise work drills, supplemented by the mentorship system; "cross-departmental expansion" provides opportunities for colleagues to participate in projects and overseas training to develop their international vision; while "executive nurturing" cultivates the management capabilities of officers at all levels, including foremen, managers, department managers and senior managers.

Cross-departmental expansion

Provide opportunities for colleagues to participate in projects and overseas training to develop their international vision.

Rooted in cultivation

Aim to improve the overall professional quality of colleagues through stringent and precise work drills, supplemented by the mentorship system.

Cultivate the management capabilities of officers at all levels, including foremen, managers, department managers and senior managers.

Executive nurturing

2022 Average Hours of Education and Training Received Per Employee

Unit: Hour

Category	Management Role	Non-management Role
Male	47	72
Female	40	37

DCC's education and training planning is divided into the following two categories according to the "target":

I. Orientation Training for "New Employees"

We provide basic cognitive training necessary for new employees. According to the common scope of the Company, the training is divided into three categories: the Company's common training (including professional functions), each unit's common training (including factories and subsidiaries), and training within divisions (including divisions and other divisions in factories) so that each onboarding newcomers is equipped with complete and comprehensive education and training.

Since 2017, we have enforced the "mentorship system". Senior colleagues from the same department or who graduated from the same school are arranged to serve as mentors to guide newcomers and help them to integrate into the organization and the workplace quickly and effectively. By the end of 2022, more than 96 colleagues served as mentors. From 2021, we introduced online courses on employee rights and obligations so that newcomers to the Group are able to gain a clear understanding of their personal rights and company rules.

As talent development and cultivation is one of CCPG's priorities, participation in job-related or regulatory refresher courses for professional and management functions by colleagues are fully subsidized. In 2022, colleagues in Taiwan factories applied for more than 1,700 external training courses. The Group also organized management-related courses, including training for new department supervisors, workplace communication and emotion management courses engineers/ management colleagues, foreman management training for foreman-level employees, with more than 900 colleagues participating. The courses amounting to more than NT$5 million were fully paid by the Group.

▲ 2022 Orientation Training for New Employees

II. Training on Core and Management Functions and Professional Functions for "Serving Colleagues"

At DCC, our serving colleagues focus on the training of "core functions and professional functions." In 2022, the entire Group organized over 12,697 courses. Key training courses for each category is summarized as follows:

1. Management Training

For those with different managerial roles, we provide appropriate managerial competency training. This enables them to gain the management knowledge and skills necessary to carry out their duties and are demonstrated through their personal management acts. In response to the trend of digitization, online courses were adopted in 2022. Microlearning methods were used to provide job coaching and interview skills, essential communication skills and personal work management techniques, and other online management courses to improve the management functions of supervisors as well as domestic and overseas colleagues. These courses were taken by more than 1,600 supervisors and colleagues.

- **Job Coaching and Interview Skills**

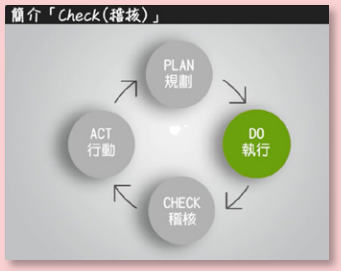
Coaching staff is one of the key responsibilities of supervisors. However, many supervisors lack interview skills and coaching interviews may lead to chit-chat, lectures or reprimands, naturally making it difficult to improve staff performance. This course provides supervisors with the skills required for interviews, covering communication principles, interview steps, and mock case exercises.

- **Must-Learn Communication Skills for Work**

Understand the communication principles between staff and supervisors
Understand the timing and techniques to apply [report], [contact], and [consultation].
Able to apply the techniques of [report], [contact], and [consultation] to work practices.

- **Personal Work Management Techniques**

Not only does the course introduce each stage of the PDCA management cycle, there are also examples from departments to be applied to the individual workplace.



2. Pre-assignment Training for Expatriates

Prior to sending our employees to an overseas factory, they are entitled to receive pre-assignment training through e-Learning. On the platform, employees learn about the local personnel establishment, management policies, traffic and living environment as well as home leave. As of 2022, we assisted more than 240 expatriate employees. Furthermore, local companies also provided senior Taiwanese senior executives with guidance and support while arranging online management training courses for new overseas executives so that they are able to build up their management capabilities immediately.

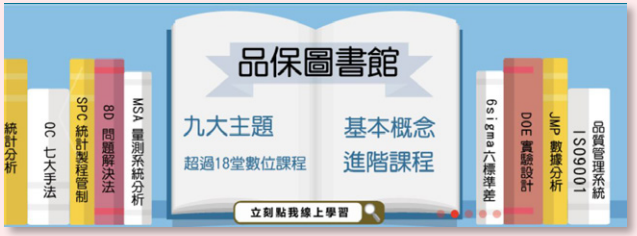
- CCPG overseas middle and senior manager successor program

By taking stock of the positions of each overseas factory where Taiwanese citizens are assigned as manager, each position is evaluated by dividing it into key position one, two, and three, based on its "difficulty in cultivating professional capability", "control needs for confidentiality of duties", and "schedule for completion of succession training". Moreover, suitable overseas candidates are selected with professional capabilities developed based on the cultivation program. In 2022, cultivation of eight positions was completed for succession by local cadres.

3. Various Compulsory and Elective Professional Training for Engineers / Managers

Since 2020, each Department scheduled a total of 113 compulsory courses for all engineers and managers. Senior colleagues also served as internal lecturers in order to pass down vital work functions and work experience to each department. Furthermore, Department have also planned elective professional courses and each supervisor of the department has the flexibility to assign employees to attend physical or online courses.

▲ Online training course for new managers overseas



▲ Online course on professional functions of QA

4. Video on the promotion of work safety within Group

CCPG takes workplace safety very seriously and providing a safe working environment is a primary goal. In a bid to increase our employees' awareness of work safety, we have produced a series of work safety promotional videos targeting 2 subjects: "forklift safety" and "high temperature spatter". The videos include promotion of a number of safety issues, including "safety distance", "work checkpoints", "dangerous areas prone to accidents", "elimination of anomalies", "difference between high-temperature and chemical spraying", "PPE wearing", etc. Through playing videos on different subjects in factories, employees are reminded of safety key points to create a safe working environment.

5. Internal Lecturer Training (Train the Trainer)

The internal lecturers are cultivated through curriculum planning, material editing and teaching to improve the training quality of the lecturer's teaching skills, while also passing down the Group's internal intellectual assets. In addition, we have established the "CCPG Shu-Ren Award" incentive mechanism to encourage knowledge sharing within the Group while increasing the passing down of experience. In 2022, a total of 130 colleagues received the award, including 48 internal instructors, 46 mentors, and 36 digital programmers.

▲ CCPG Shu-Ren Award Ceremony

6.Training on the Group's Annual Core Function "Communication and Coordination"

Since 2020, the theme launched by the HR Division was "communication". This includes courses of cross-departmental communication within the Group. By doing this, we improve the fluency of communication when carrying out conversations with others in the workplace, enhancing the overall effectiveness of communication. As of 2022, a total of 460 new engineers/managers participated in the course.

▲ Workplace Communication for New Engineers

Diversified Independent Learning Outlet and License Training

Our e-Learning platform integrates the education and training databases of all CCPG factories, allowing historical courses to be used for reference information for the coming year after being collected, analyzed and integrated. Our colleagues at our overseas factories can also conduct the Group's common training for elective courses and tests on the e-Learning Platform. This provides our colleagues with more diversified online learning resources. We also work with external online learning platforms including: CCPG Studio Classroom, CCPG Study Cube and CCPG EMBA Magazine.

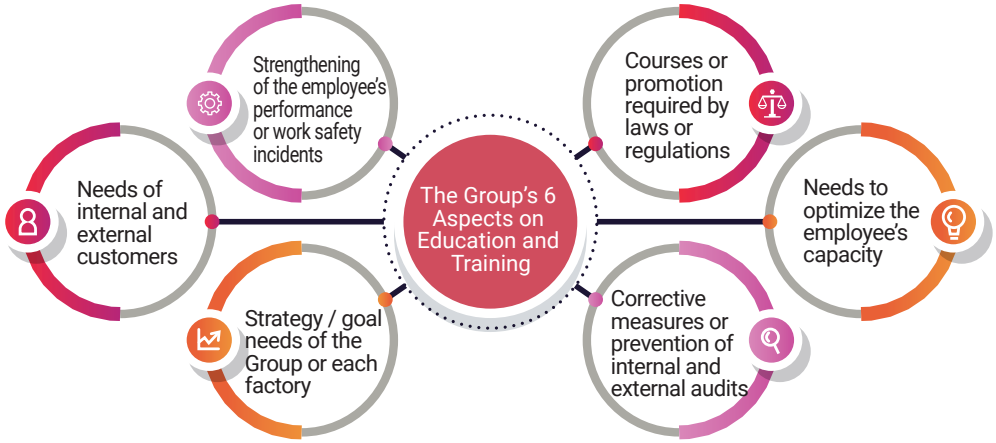
Currently, there are over 400 online courses designed by the Group or in cooperation with other units/institutions uploaded onto the e-Learning platform. Over 1.23 million users logged in for these courses since 2017. In 2022, an online course "Must-Learn Communication Skills at Work" was introduced as well as an educational video "What to Do With Occupational Burnout?" The online learning system was updated with its interface optimized, while also adding an APP to facilitate instant-watching and learning.

Trainee Engineer Training

After passing compulsory online courses, professional tests, and certain TOEIC test criteria, CCPG's colleagues at the foreman level can be promoted to engineer. In 2022, a total of 16 employees reached the criteria and were promoted.

Integrating Annual Education and Training Planning and Autonomous Internal Audit

The key to excel education and training results lies in the prior analysis of education and training needs and planning. Since 2019, each Department of CCPG annual education and training courses were based on 6 education and training needs; each factory then plans annual internal education and training courses in conjunction with the policy and education and training plans promoted.



In addition, key management review meetings are conducted on an annual basis. The Group's education and training are also audited, targeting the implementation status of the annual education and training plans proposed by each department and factory. In 2022, there were no material deficiencies.

▲ Annual Education and Training Audit

3.3 Employee Care

DCC is committed to improving employee wages and benefits and a work environment that balances work and life, and provides a variety of heartwarming welfare systems and healthcare.

3.3.1 Employee Benefits

"Bonus" Benefits	"Non-bonus" Benefits
● Bonuses for festivals ● Special subsidies ● Training allowances for expatriates	● Healthcare ● In-kind and travel allowances ● Diverse education and training ● Sports and family care ● Recreational activities by the Welfare Committee

Note: For DCC's complete employee benefits, please refer to Appendix C.

Employee Benefit Highlights of CCDSG

The Singapore Factory is situated in the Jurong Industrial Estate in the southwest of the main island of Singapore. The company provides allowances for remote areas on Jurong Island. In 2022, allowances were increased to effectively motivate current employees, enhance work efficiency, and prevent talent loss. This also helps recruit desired candidates and significantly build up employees' loyalty to the company. In addition, employees, their spouses, and children can also apply for annual medical subsidies from the factory.

DCC is fully compliant with the regulations, local minimum wage standards, and has operating procedures for wage survey adjustments in place. Each year, wages of employees are adjusted by the Human Resource Department based on the minimum cost of living announced by the central government, the minimum wage approved by the Executive Yuan, the CPI, the market situation of peers, the company affordability, and employee appraisal results, while also adjusting the starting wage of newcomers. The average salary adjustment for employees in Taiwan increased by 3% each year over the past decade.

Ratio of median annual total remuneration (formula a)	Ratio of median average annual total remuneration increase ratio (formula b)
4.52	54.89%

Note: Annual total remuneration of the highest paid individuals and other employees (excluding the highest paid individuals)

Note: Increase ratio in annual total remuneration of the highest paid individuals and other employees (excluding the highest paid individuals)

Employee Family and Physical Care

At DCC, we strive to build a friendly workplace that balances work and life through welfare and health management. By doing this, we are able to bring employees closer while deepening their sense of identity.

We began to work with professional psychological consulting organizations since 2018. The "CCPG Good Mood Hotline" has been set up for employees in Taiwan and overseas to provide consultation services. Employees are able to receive counseling from professional psychologists regarding health, life, and work issues via telephone, Line, and WeChat. The content of counseling is kept confidential throughout the entire process. Our colleagues are also entitled to two individual face-to-face consultations per year. In 2022, there were a total of eight telephone consultation sessions and nine face-to-face consultation sessions, helping employees solve their physical or mental problems, while creating a friendly and joyful workplace.

Painting CCPG - Parent-child Painting Activity:

In a bid to deepen the recognition of our colleagues and their families, we put together the 1st “Painting CCPG - Parent-child Painting Activity” in Taiwan in 2019. Each year, the event is well-received. In 2022, the theme for the 4th Painting CCPG was “My Family”, with a total of 207 paintings submitted. In August, in conjunction with Father’ s Day, the “Draw Your Family at Home” painting event was initiated and all CCPG children showed their love for their parents. Works from each group:

▲ Kindergarten Group

▲ Lower Grade Group

▲ Junior Group

▲ Senior Group

Childbirth Incentive and Unpaid Parental Leave

In response to the government’s childbirth incentive policy, DCC has joined the “Childbirth Incentive” by providing a subsidy of NT$20,000 per childbirth. At DCC, we also provide a childcare subsidy of NT$3,000 per month until the child is two years old. In 2022, the childbirth incentive was provided to 22 employees, totaling NT$440,000 and a childcare subsidy of NT$2.41 million.

DCC encourages colleagues to apply for unpaid parental leave according to their actual needs. The approval rate is 100% and their original positions will be reinstated. In doing so, employees are able to look after their babies with peace of mind.

Note: Applicable in Taiwan

▲ CCPG Family Childbirth Incentive System

2020-2022 Unpaid Parental Leave Analysis in Taiwan

Item	2020		2021		2022	
	Male	Female	Male	Female	Male	Female
Number of employees eligible for parental leave for the year (A)	124	6	164	10	120	8
Number of employees applying for parental leave for the year (B)	1	0	0	3	4	1
Number of employees reinstated after parental leave for the year (C)	0	0	1	2	4	2
Number of employees applying for reinstatement for the year (D)	0	0	1	2	4	2
Reinstatement rate (D/C)	-	-	100%	100%	100%	100%
Number of employees reinstated in the previous year (E)	6	3	0	0	1	2
Number of employees reinstated in the previous year and has been a full year (F)	5	2	0	0	0	2
Retention rate (F/E)	83.3%	66.7%	-	-	0%	100%

Note 1: Reinstatement rate = Number of employees applying for reinstatement for the year/ Number of people reinstated after parental leave for the year.
Note 2: Retention rate = Number of employees reinstated in the previous year and has been a full year / Number of people who have been reinstated in the previous year.

2020-2022 Parental (Maternity) Leave Analysis for Overseas

Item	2020		2021		2022	
	Male	Female	Male	Female	Male	Female
Number of employees eligible for maternity leave for the year	28	5	17	7	18	8
Number of employees for maternity leave for the year	28	5	17	7	18	8
Number of employees reinstated from maternity leave for the year	28	6	13	4	15	2
Number of employees applying for reinstatement for the year	28	6	13	4	15	2
Reinstatement rate	100%	100%	100%	100%	100%	100%
Number of employees reinstated in the previous year	24	11	28	6	13	5
Number of employees reinstated in the previous year and has been a full year	24	11	28	6	13	3
Retention rate	100%	100%	100%	100%	100%	60%

Note 1: Reinstatement rate = Number of employees applying for reinstatement for the year/Number of people reinstated after maternity leave for the year.
Note 2: Retention rate = Number of employees reinstated in the previous year and has been a full year / Number of people who have been reinstated in the previous year.

Harmonious Labor-management Relations and Communication Outlets Based on Mutual Trust

The first labor union was established in 1985 by DCC's factory, and a meeting for representatives is held with each labor union on an annual basis to facilitate a smooth and diverse labor-management communication channel.

To ensure smooth and transparent communication between labor and management, DCC has established a variety of labor-management communication outlets for resolving labor-management disputes and protecting and enhancing the rights and interests of our employees. In addition to the annual meeting of union representatives, meetings of union directors and supervisors, labor pension fund supervisory committee, and labor management, employees may also use telephone and E-mail as communication channels or engage in a face-to-face conversation through factory supervisors and union officers. Also, employees can also propose suggestions through the employee grievance channel.

Labor Union Composition

Region	Year of Establishment	Number of Members	Union Member Percentage
Kaohsiung Factory	1985	196	92.9%
Dafa Factory	1999	294	88.6%
Mailiao Factory	2006	206	74.4%
DCCJS	2003	313	100%
CCDSG	2014	46	24.6%

Retirement Protection

To retire with peace of mind is a demonstration of CCPG's long-term care for our employees. The Company abides by local government regulations and laws to ensure a worry-free retirement life to its employees.

In Taiwan, for employees who are eligible for the new labor system at retirement, we have set up self-appropriation of the 6+1 Reward Program; for employees who are eligible for the old system at retirement, we have set up a "Labor Retirement Reserve Supervision Committee" to supervise the utilization of employee pensions. Each year, we conduct regular annual actuarial calculations to ensure that the financial capacity of the Company is sufficient to cover employee pensions. Moreover, in thanks of the years of hard work of our retired employees, a solid gold coin with the text "CCP" engraved on it will be given at retirement.

The Self-appropriation of 6+1 New Pension System Reward Program

We encourage those employees eligible for the new labor system at retirement to place importance on the planning and protection of their retirement life. If an employee contributes 6% of their salary into their pension, the company's statutory appropriation rate will increase by 1%. At DCC, from when it was first launched in February 2019, the number of employees contributing 6% was 533 (accounting for 63.9% of the total number of people eligible for the new system) by the end of 2022. (Note: Applicable in Taiwan)

Help Prevent the Spread of COVID-19

In 2020, the pandemic outbreak severely impacted the entire world. During its peak, our companies purchased face masks for all colleagues. The workplace was regularly disinfected, and colleagues were asked to work on different floors and offices or from home to prevent infection in groups. In a bid to improve vaccination rates, employees are given a full paid day to get vaccinated.

In order to show our gratitude to expatriates for their dedication to duty during the outbreak, we offered an additional payment; employees returning to Taiwan for holidays received full subsidies for the quarantine hotel, taxis and expenses on PCR tests; and their holidays were extended, enabling them to spend more time with their loved ones.

To raise COVID-19 awareness, we provided the "Exclusive Pandemic Prevention and Quarantine Tips" to employees in quarantine to ensure that they looked after themselves during the period and seized the opportunity to enrich themselves. Furthermore, we have also provided each factory with "COVID-19 Prevention Packages", consisting of preventive measures for self-physical care and mental health for in-factory announcement and playback.

Exclusive Pandemic Prevention and Quarantine Tips

The Company provided the " Exclusive Pandemic Prevention and Quarantine Tips" to employees in quarantine to ensure that they looked after themselves during the period and seized the opportunity to enrich themselves, including:

- Notes to self-disinfect in the quarantine hotel and the quarantine period
- Common courses recommended by e-Learning
- Tips on how to use the Group's English and Japanese language learning and EMBA learning platforms.
- Exercise during the quarantine period

COVID-19 Prevention Package:

Consists of COVID-19 prevention videos, audio files on breathing techniques for mindfulness and relaxation, posters and slogans, for in-factory announcements and playback.

DCC's COVID-19 Pandemic Prevention and Response Measures

In 2022, Taiwan entered a peak period of the COVID-19 pandemic. In response to the COVID-19 situation, DCC has formulated relevant epidemic prevention measures in accordance with government policies and has aligned with the dynamically evolving governmental guidelines. For more detailed information, please refer to Section 4.1.2 Risk Management.

3.3.2 Health Care

To implement healthcare, DCC has complete management and execution measures in place to identify health risk factors, assess improvement methods, implement management tools to evaluate the effectiveness of implementation through a systematic occupational health management framework. In order to provide our employees a healthy working environment and to achieve the above objectives, DCC has formulated health-related operating standards to carry out measures relating to the health of employees.

DCC's factories have established a health management promotion program based on the occupational health management framework. Internally, all employees participate in health promotion activities. Our factories have established the entire factory's health management promotion program based on the systematic occupational safety management framework mentioned previously, supplemented by the health needs of factory employees. By doing this, the health of employees has gradually improved and a consensus on a healthy working environment is built.

DCC Mailiao Factory - Health Promotion Campaign

(1)Weight management competition campaign and seminar

The top three health abnormalities at the DCC Mailiao Factory are fatty liver, BMI>24, and large hip circumference, which are risks of obesity. A total of 55 employees participated in 2022, with a remarkable average weight loss of 2.39kg per person and an average decrease in body fat percentage of 6.39%. During the weight management period, two health seminars were held, namely "Exercise and Healthy Life" and "How to Lose Weight", which saw 10 participants.

▲ DCC Mailiao Factory - Weight management contest campaign and seminar

(2)Daily blood pressure measurement contest

At the DCC Mailiao Factory, colleagues are encouraged to regularly measure their blood pressure and strike a balance between rest, diet, and exercise in order to keep normal blood pressure and physical health. During the weight loss campaign period as described above, a total of 21 colleagues achieved 60 logs of blood pressure measurements.

DCC Kaohsiung Factory – Employee Weight Loss Campaign

In 2022, a total of five employees participated in the weight loss campaign. By monthly weight measurement, health education, and encouragement, we understand that weight loss does not just improve appearance and boost confidence, but the concept of personal health and life discipline can also be deeply rooted in employees. In 2022, a total of 2 employees successfully lost weight and achieved BMI<35 and have not put on weight for more than six months.

Health Management Promotion Program for Overseas Bases

The health of employees overseas is equally important to DCC. By continuing to promote a variety of health promotion programs, we can get a grasp of the health situation of our employees in overseas factories while constructing a trusting working environment that satisfies them.

CCDSG - National Walking Challenge

Through digitization, the Health Promotion Board in Singapore initiated the “National Steps Challenge” aimed for people to reduce sedentary time, as well as risks of developing type 2 diabetes or hearts disease through exercise. This campaign also motivates companies to encourage employees to engage in moderate to high intensity physical activities to be healthier.

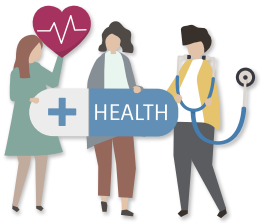
Employees who proactively participate in the walking activity who complete an average of 10,000 steps or more every day for four months will be granted with a government bonus. The top three employees with an average of 10,000 steps or more will be given extra bonuses.

DCCJS - Held Psychological Care Coaching Training and Occupational Health Activities

1. As a means to reinforce cultural care and the health of workers, while also understanding the mindset of workers in a timely manner, specialists of the Company’s EAP Labor Relations together with the Manager of Human Resource Department, Wang Hong-Yan, conducted training on psychological care and coaching for employees.

2. The “DCC Occupational Health Expert” activity was launched to enhance awareness in health, increase occupational hazard prevention awareness among employees, as well as promote exercise of healthy behaviors, according to the “Notice on the Launching of the ”Occupational Health Specialists” Campaign” by the National Health Commission and National Federation of Trade Unions, company health enterprise construction work plan, and implementation plans and requirements. In 2022, seven colleagues were recognized as “Occupational Health Experts”.

In terms of health management, we plan the short, medium, and long term objectives for employees and contractors. The medium-term plan is to fully investigate and evaluate chemical hazards in the workplace as well as controlling the exposure concentration to under 10% of the limit value; the long-term plan is to develop a risk trend analysis of the top five diseases with the highest prevalence in the DCC and invest in health management to create a healthy working environment. The short-term implementation measures are as follows:



Occupational Health Management Measures

An employee health management system has been built in DCC's enterprise resource planning (ERP). Employees' health management data over the years can be compiled and digitized within the system, enabling employees to check on changes in their medical examination data and pay attention to their health status at any time. By categorizing and grouping the health examination data, the clinical standards can be confirmed, enabling analysis of the health examination data and evaluate the effectiveness of health management. DCC' ERP has now passed the ISO 27001 information security certification for 11 consecutive years. The medical examination data of our employees is safeguarded, so that there is no need for them to worry about data leaks.

Inspection Management for Operations with Special Hazards to Health

At DCC, we are committed to identifying special health hazards in the workplace in each of our factories. We entrust professional monitoring vendors to perform inspections in accordance with specific laws and regulations. Improvement, management and effectiveness of short and medium-term objectives are carried out and assessed. We also worked with a team made up of professors and experts from various major universities to achieve the following results:

1. Implemented the division of labor mechanism for operational environmental monitoring and testing and performance review of each factory of the DCC; completed the review of the operational environmental monitoring and testing planning, project, on-site sampling and monitoring and report; completed contractor appraisal of operational environmental monitoring and testing, reaching 100% of the implementation of the operational environmental monitoring and testing process in each factory.
2. Established the module of labor exposure parameters and results compilation, covering the labor exposure survey, physical and chemical sampling and sample analysis record and data analysis form of the report of operational environmental monitoring and testing exposure evaluation.
3. Confirmed the improvement effectiveness of high risk areas (>1/10 allowed concentration standard) of the operational environmental monitoring and testing at DCC's factories; conducted improvement plans after evaluating high-risk areas to be prioritized for improvement; completed on-site visits and surveys in one high-risk area for improvement effectiveness.

Health Examination Management for Operations with Special Hazards

As required by the law, DCC provides an annual special hazard health examination for employees exposed to health hazards in the workplace. The actual working conditions of employees, the measured concentration of chemicals in the workplace, and the volume used in operations are provided to the physician as a basis for determining whether there is occupational exposure and whether the employee may develop diseases. For employees who show abnormalities in the results of the health examination, we take advice from the physician to improve the nature of the risk source and transfer the employee to another job. In 2022, the coverage rate of special hazard health examination conducted by DCC was 100%, with no special abnormalities found.

Examination Item	No. of People	Coverage Rate
28	1,158	100%

Note: For detailed information, please refer to Appendix C.

CPR+AED Education and Training

In 2022, 2 factories of DCC conducted education and training on CPR and AED. This helped employees increase their awareness of rescuing themselves and each other in the event of an emergency, popularizing rescue knowledge.

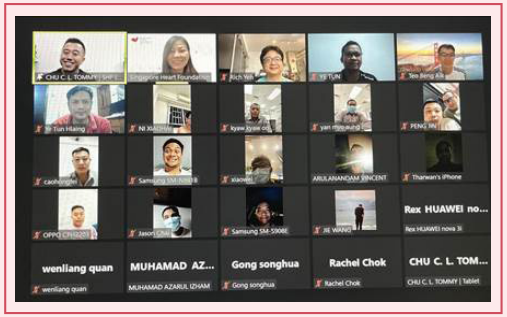
DCC Mailiao Factory

1. There are 15 Emergency Medical Technicians at the first level, who receive eight hours of refresher training per year.
2. AED Safe Area Certificate: 97% of employees received CPR+AED training and passed certification in January 2022.

▲ DCC Mailiao Factory - AED Safe Area Certificate

CCDSG

In 2022, a lecturer from the Singapore Heart Foundation was invited to coach and teach CPR and various first-aid approaches. The VRAH program is a simplified CPR+AED training course centering on pure manual CPR. Two sessions of the VRAH program were held, with 69 participants (totaling 69 hours).



◀▲ CCDSG - Teaching of CPR and various first-aid approaches

Maternity in the Workplace

DCC takes pride in providing a quality healthy maternal environment for our female employees. In our factories, we have set up private rooms for breastfeeding or milk expressing in accordance with the Act of Gender Equality in Employment, Labor Health Protection Rules, and Standards for Establishment and Administration of Public Breastfeeding (Collecting) Rooms. Moreover, dedicated personnel have been designated to manage these rooms in accordance with the usage and cleaning maintenance regulations, enabling female employees, contractors, or visitors during pregnancy or breastfeeding period to have a comfortable and private environment.

Moreover, for female employees returning to work after giving birth, departmental managers and factory healthcare personnel must adopt the hazard assessment, control and classification management measures for work that may pose a risk of maternal health hazards in accordance with the “Procedures for Implementing Maternal Health Protection for Female Workers.” These female workers must not engage in work that may have adverse effects on maternal or infant health during the development of the embryo, pregnancy or breastfeeding period. According to clinical occupational physician’ s suitability assessment, protection measures including work adjustment or change of workplace must be adopted while also providing ongoing care and health education.

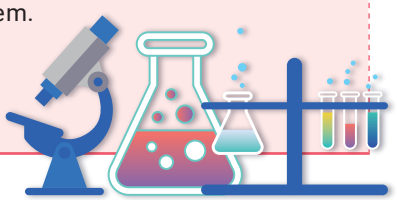
3.4 Occupational Health and Safety

Providing a healthy, safe, and eco-friendly workplace is the duty-bound responsibility and obligation of DCC and its employees. We highly value work safety maintenance and make a proactive approach to internalize the spirit of responsible chemicals in the Company, while ensuring the safety of our employees and customers through a robust chemical management system. At the same time, we raise work safety awareness among our contractors, further exerting our influence in the value chain. Moreover, we continue to make improvements to achieve the goal of zero accidents through implementing environmental safety and health and promoting process safety management (PSM). We aim to expand the lifecycle of all products which is included in DCC's responsible care system.

3.4.1 Chemical Safety

Management Approach "Chemical Safety"

Meaning of Material Issues	DCC takes a responsible attitude on the subject of R&D, raw material acquisition, production, use and disposal stages of chemicals. We seek safe alternatives and reductions when using high-risk/hazardous substances to reduce any negative impact on human health and the environment.
Responsibility	Product Standards Department, Safety & Health Department
Policy and Commitment	To reduce the harm caused by hazardous chemicals to the human body and the number of deaths and illness caused by air, water, and soil pollution by 2030.
Target	**Short-term** ● Control of toxic and chemical substances of concern in Taiwan (3 toxic chemical substances) ● Continue with standard registration of existing chemical substances in Taiwan. ● 100% completion rate of inventory and identify hazards of products. ● Perform or obtain the exposure evaluation through registering/ reporting international chemicals within the legal period. **Medium-term** ● No major chemical accidents and pollution. ● Increase the transparency and exposure of product hazards. ● Internalize the information of chemical use safety as product safety responsibility. **Long-term** ● Promote chemical recycling. ● Reduce the use of hazardous chemicals with safe alternatives. ● Products meeting regulatory requirements.
Action Plan	● Control of toxic and chemical substances of concern in Taiwan. ● The standard registration of existing chemical substances in Taiwan. ● Ascertain the current status of GHS for the Company's raw materials. ● Perform inventories on the Group's own products and make them known to the customers. ● Register chemicals in different countries. ● Construction of REACH sales control system. ● Raise awareness of chemical regulations among the Company's colleagues.

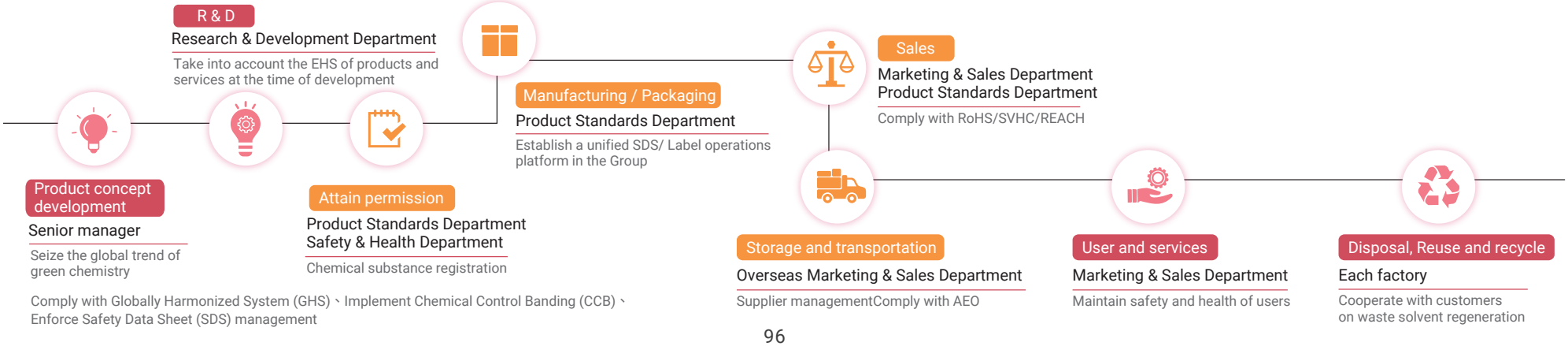


2022 Implementation Result	● Completed the statistical system for products and raw materials of chemical substances and applied for statutory reporting in Taiwan (a total of 96 chemical substances, 100% reported). Planned standard login implementation strategy of existing chemical substances in Taiwan; completed the login of one chemical substance and commissioned consultants to carry out login of one substance, totaling two substances. ● Executed the control process of the toxic substances and chemicals that currently control a total of 37 master files of customers' toxic substances and chemical products for customers. ● Construction of the Group's database for material safety data sheet (SDS) with 900+ documents issued.	● Construction of DCC's GHS product label platform, with 160+ products meeting regulations of labeling. ● Information construction of the REACH sales control system, taking inventories and control of 160+ products. ● Construction of a supply chain questionnaire platform. ● Construction of a tiered management screening function for hazardous chemicals in Taiwan. ● New information on thematic regulations are released on a quarterly basis. ● Complete the registration of chemicals in each country, with a 100% target achievement rate.
Communication/ Grievance Mechanism	● Communicate or file a grievance via customer hotline, DCC website - Contact Us, or email. ● Convey hazards and information on safety use of the Company's products via hazardous goods labels, GHS labels and SDS.	

When it comes to chemical management, DCC's top priority is to comply with laws and regulations, particularly product compliance. By doing so, we will meet the requirements and confidence of customers in our products. To achieve the Strategic Approach to International Chemicals Management (SAICM) and reduce the negative impact posed on the environment and human health during the manufacturing and use of chemicals. In 2022, the Company has continued to set itself a target to participate in chemical registration in different countries, and to understand the hazards of the Company's products through the completion of registration and substance exposure evaluation. The information regarding hazardous products is conveyed to our downstream customers by the SDS and GHS labels, enabling downstream customers to grasp the safety information on the use of products, while allowing them to take appropriate preventive and handling measures.

Internal Management Process of Chemicals

We have established a sound chemical management system from products to raw material inventory. We complete chemical safety evaluations through a pre-registration evaluation, chemical substance identification, and establishment of a registered substance data. To date, we have completed registration or login of dozens of chemical products in the EU, Taiwan and Korea, providing customers with product compliance protection. In terms of substances of very high concern – not only do we conduct management system inventory twice a year, but we have also added an audit mechanism to get hold of the safe use and product residue status at the time of issuing the raw material SDS or producing of the product SDS. Furthermore, we make suggestions for alternatives internally in accordance with the international control trends to reduce possible risks on human health and the environment from substances of very high concern. For the management of substances of very high concern during the development and application of new products and existing products, please see 1.2.1 Green Process and Products.



The dedicated department continues to promote chemical regulations in each factory, while updating the chemical operation list and substance information. Moreover, it also continues to expand the function of the system, combined with procurement, finished products and inventory system to make up for missing chemical information of finished products and raw materials. In addition, a toxic chemical substance documentation management platform has also been established to control the legality of import and export of toxic chemical substances.

Control of Toxic and Chemical Substances of Concern

The Company has completed the construction of the sales management mechanism for toxic and chemical substances of concern. The mechanism was activated on January 1, 2022, with its contents including: (1) documentary information verification of customers, (2) application review for delivery of toxic and chemical substances of category 1 to 3 and hazardous chemical substances of concern, (3) reminder mechanism and three other management mechanisms, designed to reduce the error rate of operators through the system check and anti-defect control. Through the triple-layered management mechanism, we ensure that we are in line with regulatory requirements and reduce the impact of harm to stakeholders.

2022 Results of Chemical Registration/Verification

- In response to 2022 market demand, we completed one exemption application in Korea and one REACH registration in the UK.
- This year, standard logging of the existing chemical substances in Taiwan continued to be implemented. Up until now, one substance standards have been logged by us, one substance standards have been logged by consultants.
- On the subject of the REACH sales control system developed in 2021, in addition to continuing to carry out product inventory, the raw material composition audit function developed this year will better ensure product compliance.

Construction of a Tiered Management Screening Function for Hazardous Chemicals in Taiwan

This year, we developed a tiered management screening function for hazardous chemicals in Taiwan. Through product hazard identification, we classified three major categories in the chemical list: (1) chemicals with GHS health hazards, (2) chemicals with permissible exposure standards, and (3) chemicals to be monitored. The tiered evaluation helps each factory of the Company, combined with a tiered structure and concept of management, to propose a systematic exposure evaluation plan and implement tiered management for hazardous chemicals.

Product Safety and Customer Service

DCC is passionate about implementing the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals to reduce causing harm to humans and the environment by chemicals. Moreover, we have become aware of the development of related policies, and have designated a department to oversee the planning and implementation in relation to the Company's GHS procedures and operations. These matters include the classification of GHS hazards for all products (so as to keep abreast of the use of health and environmental hazard Level 1 and Level 2 chemicals), standardization of safety data sheets (SDSs), labeling compilation, compliance promotion, and regional emergency consultation telephone lines (an emergency telephone service was added in the U.S. and Canada this year). General education and training on hazards in the factory area are organized in accordance with laws and regulations.

In terms of regulatory requirements in Korea and EU countries, we submitted 17 product MSDS to the Korean Occupational Safety and Health Agency (K-OSHA) within the statutory deadline while also completing 313 SDS EU-version updates, with a 100% achievement rate.

The SDS and hazard labels provided to customers or available in the operational site are completed through the reliable data combined with classification of logic, supplemented by systematic control and effective deadlines. In accordance with the global operation strategy, the SDS is provided in the customer's native language and in line with their domestic laws and regulations; it is also used as the basic measure for the sale of products, thoroughly conveying the information of product safety to customers. Up until 2022, nearly 442 product SDSs have been produced and distributed.

In addition to banned chemicals, a small number of DCC's products are listed or have been proposed to be listed as psychotropic substances in certain countries. In an attempt to demonstrate and fulfill our CSR, we, alongside our peers in the industry and industry associations, have begun to adopt global autonomous management to prevent the spread of illegal use of substances. We have implemented effective management from production control in the factory to investigations on the use of the end customer.

Construction of a Supply Chain Questionnaire Platform

This year, we developed a supply chain questionnaire platform to survey raw material compliance of upstream suppliers or information notification of REACH importers of downstream customers. Information related to supplier chain compliance can be obtained on the questionnaire system, which can be analyzed to fulfill the Company's supply chain contact responsibility in a more efficient manner.

New Information on Thematic Regulations are Released on a Quarterly Basis

In addition to collecting the latest chemical regulations of various countries and issuing internal notifications to promote chemical management trends monthly, we also began to introduce thematic regulations on a quarterly basis this year. Practical explanations and introduction of system operations were provided to our colleagues, which served as a bridge to strengthen the connection between their daily work and chemical regulations. This way, we will improve the utilization rate and effectiveness of the internal management system, enabling each department to implement the Company's chemical management system.

3.4.2 Workplace and Process Safety

At DCC, in an effort to build a safe workplace, we continue to maintain and improve occupational health and safety of employees. We have formulated an occupational health and safety management policy, with annual occupational safety goals set each year. Our Taipei office and factories have attained the OHSAS 18001 Occupational Health and Safety Management System, and started its conversion of ISO 45001:2018 Occupational Health and Safety Management System in 2019, including procedure conversion, education and training, and internal and external audits. In 2020, the conversion of certification was completed. In 2022, Taipei Company and all factories passed ISO 45001:2018 external audit, covering 100% of employees.

Management Approach for "Occupational Safety and Health"

Meaning of Material Issues	Neglecting occupational safety and health measures - poor physical and mental health can result in accidents, while prolonged exposure to a hazardous environment can result in Work-related ill health. A major accident may result in a factory shutting down for several months and causing a significant impact on the external environmental and society, further affecting the entire industry and incurring social costs. Chemical spills in the factory can cause environmental pollution, fire, or explosions. Employees may be infected with occupational diseases which may lead to community transmission, causing health hazards.
Responsibility	Taipei Head Office: Safety & Health Department; All Factories: Safety & Health Department
Policy and Commitment	We follow the Occupational Health and Safety Act and adhere to international standards and norms. Through equipment and process improvement, we are committed to reducing health and safety risks while at the same time fulfilling our responsibility to ensure the health and health of our employees, contractors, in factories and communities.

Target

KPI	Short-term Target(2023)	Medium-term Target(2025)	Long-term Target(2030)
Number of process safety events Tier 1: process safety event Tier 2: process safety event	Tier 1: no greater than 1 event Tier 2: no greater than 4 events	Tier 1: no greater than 1 event Tier 2: no greater than 3 events	Tier 1: no greater than 1 event Tier 2: no greater than 2 events
Improvement planning and cases implemented in accumulated high potential risk environment in Taiwan factories (>1/10 allowed concentration standard)	3 cases	5 cases	10 cases

Action Plan

The achievement status of sustainability targets for each sustainability issue is examined through the ESG Committee on a quarterly basis.

Externally

- Industry-academia Collaboration: Each year, over NT$10 million is spent on safety and NT$4 million on health. We continue to work with external entities to improve the Group's health and safety standards through education and training and expert counseling.
- By taking part in various PSM external seminars and international license training, we continue to develop and cultivate PSM-related professionals.

Internally

- All factories must implement a dedicated process safety engineering system with dedicated personnel to safely protect processes.
- We continue to organize courses on the cultivation of work safety culture in an effort to establish a personnel safety culture to reduce occupational disasters.
- We formulate the most appropriate risk reduction measures by regularly reviewing the Job Safety Analysis (JSA) of each operation based on operational experience and accident cases.
- We manage the effectiveness of each factory promotion of PSM through the establishment of various information systems.
- Effectively improve harmful factors in the factory through digitized management in operations to prevent the possibility of human contact.

2022 Implementation Result

KPI	Achievement for 2022
Number of process safety events Tier 1: process safety event Tier 2: process safety event	Tier 1: 2 process safety events Tier 2: 2 process safety events
Improvement planning and cases implemented in high potential risk environment in Taiwan factories (>1/10 allowed concentration standard)	Improvement planning and cases implemented in high potential risk environment (>1/10 allowed concentration standard): 1 case

Safety

- Compile domestic a list of representative cases of incidents for promotion on staff.
- Introduction of the Procedural HAZOP evaluation.
- Organize education and training to reinforce the risk analysis capability of process safety engineers.
- Continue to promote the process safety manual and simulation exercises to implement safety production.

Health

- We issued management procedures for environmental monitoring of the operating environment and a guidebook for the acceptance of tenders. The review of division of labor mechanism and results for the monitoring of the operating environment in each factory of the Group have been conducted in accordance with these measures.

Communication/ Grievance Mechanism

Any environment, safety or health issues or injustice encountered in the factory may be reported to the safety and factory health manager. If it involves a wider issue, a grievance case may be filed at the Taipei Company to ensure an effective resolution.

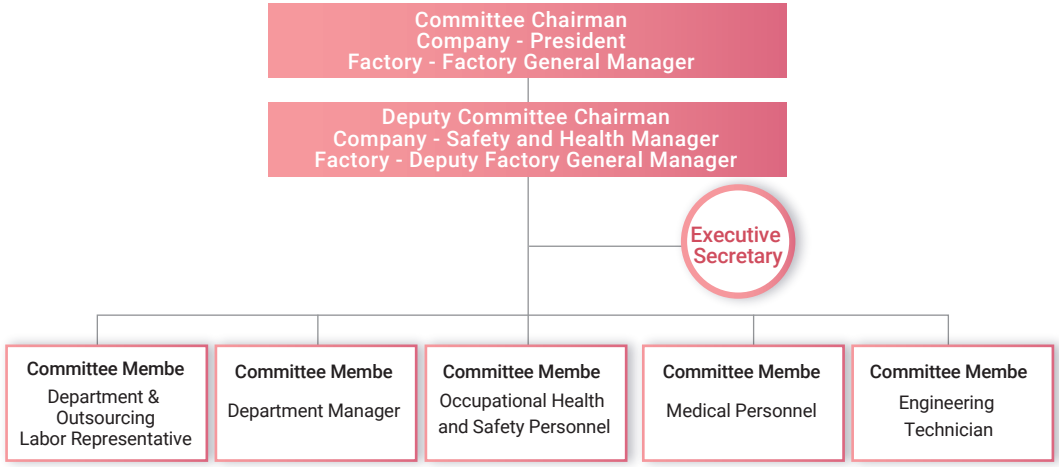
Promotion of Occupational Health and Safety Committee

Owing to the dedication of occupational safety, DCC regularly promotes the safety culture and system through different levels of committees and meetings, as well as employee involvement. By allowing the safety policy to be implemented in the work of each employee, we can optimize the safety system via the feedback of employees. We have formulated and implemented the "Occupational Health and Safety Committee Implementation Measures" and established Occupational Health and Safety Committees for the Group and all factories. Each Committee is made up of both employees and employers with the President or factory general manager as the Chair. In 2022, the total number of the Occupational Health and Safety Committee members of all factories was 141 including 83 workers, accounting for 59% of all members. The Committee aims to handle the proposal, coordination, and supervision of environmental, safety, and health-related matters in the factory. Each quarter, we convene an Occupational Health and Safety Committee meeting to implement employee consultation and employee involvement, and the following topics were discussed in order:

- Suggestions for the occupational health and safety policy
- Coordinate and recommend occupational health and safety management plans
- Safety and health education and training implementation plan
- Operating environment monitoring, results and measures taken
- Health management, work-related ill health prevention and health promotion matters
- Safety and health proposals
- Matters associated with automatic inspection and safety and health audits
- Preventive measures for hazards from machinery, equipment, or raw materials and materials
- Occupational disaster investigation report
- Review of safety and health management performance
- Safety and health management of contracting operations
- Other matters associated with occupational health and safety management

2022 was the peak of COVID-19 in Taiwan. In line with the government's initiative to encourage people to get the COVID-19 vaccine to achieve herd immunity, we promoted the importance of the vaccine at the Occupational Health and Safety Committee meetings. In doing so, we are able to increase the vaccination coverage rate of the Group's employees to ensure their health and safety. We also review and revise the Group's disease prevention policy in accordance with the information released by the Taiwan Centers for Disease Control.

Organizational Chart of DCC's Occupational Safety and Health Committee



2022 DCC Ratio of Members and Workers of the Occupational Health and Safety Committee

Domestic and Overseas Bases	Total number of Safety and Health Committees	Workers of the Committee	Ratio of the Workers of the Committee
Taipei Company	18	15	83%
Mailiao Factory	19	7	37%
Dafa Factory	23	9	39%
Kaohsiung Factory	17	6	35%
Jiangsu Factory	25	9	36%
Malaysia Factory	12	11	92%
CCDPJ	14	14	100%
CCDSG	13	12	92%

Work Injury Statistics

In 2022, DCC had a total of 9 work injuries/accidents (including off-site traffic accidents), all of which have been included in the management references as a basis for optimization and improvement. The main injuries that occur in the factory are: falls, cuts from machinery operation, burns, and chemical spills. On the other hand, the number of accidents outside the factory were slightly higher.

Regarding work injuries inside the factory, we reinforce SOP education and training, and ask workers to make sure that they wear PPE properly. Furthermore, we have re-examined the Job Safety Analysis (JSA) on all operations and formulated optimal risk reduction measures, such as modifying the SOP, operational equipment, and switching to safer tools and PPE, in order to prevent similar accidents from recurring.

2020-2022 Indicators for Work-related Injuries

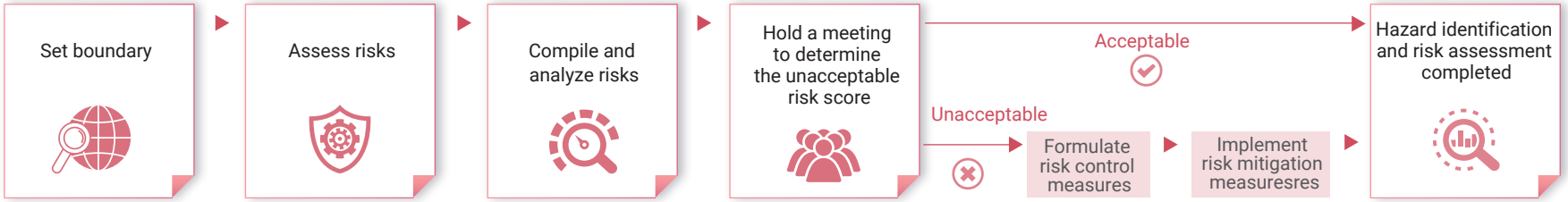
Year	2020			2021			2022		
Gender	Male	Female	Total	Male	Female	Total	Male	Female	Total
No. of fatalities as a result of work-related injury	0	0	0	0	0	0	0	0	0
No. of high-consequence work-related injuries	1	0	1	0	0	0	0	0	0
No. of recordable work-related injuries	12	0	12	11	3	14	9	0	9
Rate of fatalities as a result of work-related injury	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rate of high-consequence work-related injuries	0.07	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
Rate of recordable work-related injuries	0.80	0.00	0.71	0.71	1.43	0.80	0.59	0.00	0.51
Total number of hours worked	3,000,838	401,786	3,402,624	3,095,750	418,291	3,514,041	3,072,491	444,588	3,517,079

Note 1: There were no work-related ill health incidents in DCC in 2020-2022.
Note 2: Rate of fatalities as a result of work-related injury = No. of fatalities as a result of work-related injury / Total number of hours worked x 200,000*.
Note 3: Rate of high-consequence work-related injuries (excluding fatalities) = No. of high-consequence work-related injuries (excluding fatalities) / Total number of hours worked x 200,000*.
Note 4: Serious work-related injuries are defined as an injury that results in worker' s inability to recover to the pre-injure state of health within six months due to occupational injury.
Note 5: Rate of recordable work-related injuries = No. of recordable work-related injuries / Total number of hours worked x 200,000*.
Note 6: Recordable work-related injuries are defined as the Occupational Accident Statistics reported monthly to the Occupational Safety and Health Administration, Ministry of Labor.
Note 7: For detailed information on each factory for 2022, please refer to Appendix C.
*: Refers to the rate per 100 employees for 50 weeks per year with 40 working hours per week.

Occupational Accident Prevention and Handling

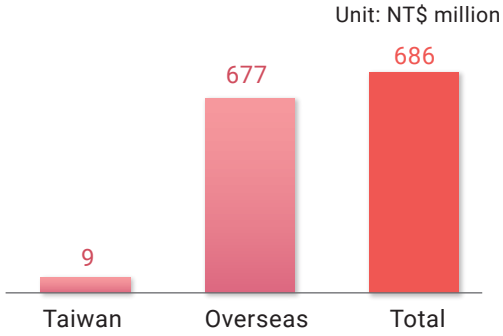
We use statistics to analyze the cause of incidents and investigation outcomes, and propose prevention plans and propose countermeasures and relevant improvement action plans at the occupational safety meetings. After that, potential hazards are identified and controlled in advance through identification and risk assessment for safety and health hazards to protect the safety and health of our employees.

Identification and Risk Assessment for Safety and Health Hazards Operating Procedures



DCC is committed to protecting the safety of all employees. Aside from providing PPE and management of related procedures, we continue to invest in adding and improving related safety and firefighting equipment each year. In 2022, we invested a total amount of NT$686 million and by doing this, we hope to reduce the possibility of accidents, while improving the ability to respond in the event of an accident, further reducing injuries caused by accidents, while improving response capacity and reducing the harm caused by accidents.

2022 Safety and Firefighting-related Investment Amount

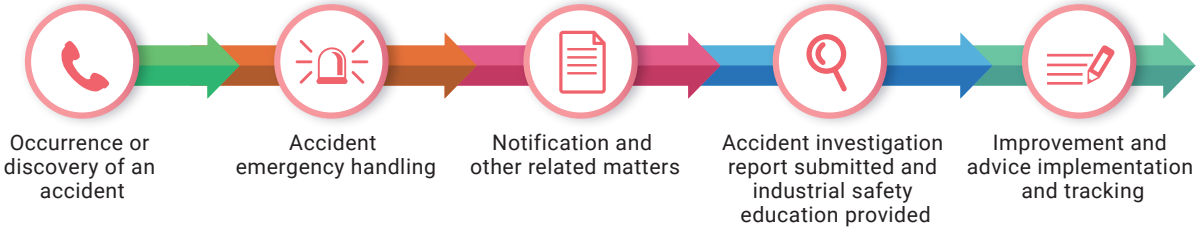


An accident within the Company or false alarm that does not constitute an occupational accident will be handled in accordance with the accident handling and investigation management measures, allowing the Company to create a safe workplace culture.

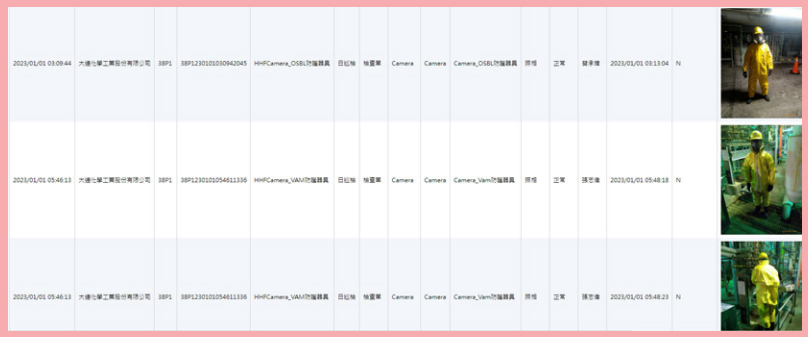
DCCJS - Received a “Red Ribbon” Advanced Unit by the Yangzhou Safety Committee

DCCJS conducted an incentive for employees to propose improvement for foreseeing hazards. Through encouragement, employees were guided and inspired to participate in the inspection of hidden hazards on their own initiative, further controlling various types of hazards. This safety management approach was recognized and DCCJS received a “Red Ribbon” advanced unit by the Yangzhou Safety Committee in June 2022.

Accident Handling and Investigation Management Measures



Personal protective equipment (PPE) is an important line of defense for the protection of operators. In an effort to reduce the occurrence of accidents from exposure to chemicals, DCC has conducted a comprehensive inventory of the wearing of PPE over years and their suitability evaluated, establishing guidelines for basic PPE use. In the past, the correct use of PPE depended on manual checks on site. In 2022, we introduced a smart inspection for PPE wearing. Before work, a photograph of the operator wearing PPE is uploaded onto the smart inspection phone for the head of each department as well as the safety and health personnel to conduct random checks on PPE use at any time, achieving the purpose of systemic management, effectively preventing personnel injuries.



▲ Smart Inspection Mobile System

Smart Disaster Prevention Technology Application

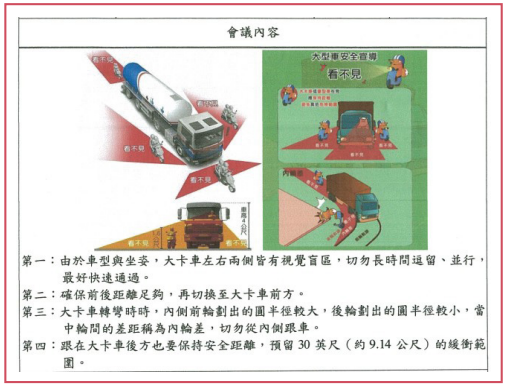
Using technology to prevent disaster is a trend for factory safety management in the future. In 2022, DCC also used AI image recognition to carry out smart monitoring of high-risk operation areas in all factories and strengthened the early alarm function to improve operational safety management.

DCC Mailiao Factory - Introduces an AI Clothing Recognition System to Strengthen Operational Safety

The AI clothing recognition system at the DCC Mailiao Factory is able to automatically identify whether the operator in the boiler area is using the PPE correctly. In case of an abnormality, the operator and relevant supervisors will be alerted immediately via on-site broadcasting, the control room monitoring system, email, and Isender. In doing this, we are able to prevent accidents caused by chemical spills due to incorrect PPE use.

Traffic Accident Prevention

In 2022, DCC had a total of one employee traffic accident, which was included in the management references as a basis for optimization and improvement. On the subject of traffic accidents, improvements were made in three aspects: human factors, vehicles, and roads. In terms of roads, we reexamined the traffic environment of the section where the accident took place to remind our colleagues to pay more attention. In terms of vehicles, we promote regular inspection of vehicles to make sure that tire patterns and tire pressure are normal. We also encourage our colleagues to share a car or take a company bus instead of riding a motorcycle, or ride a motorcycle that is equipped with an ABS anti-lock system. In terms of human factors, in addition to continuing to enhance the promotion of safe driving during the departmental health and safety meeting, the health and on electronic media, we also conducted accident simulations for traffic accidents to remind employees of driving safety. As well as this, we hired an instructor from the Traffic Police Department to carry out education and training to raise the defensive driving perception of colleagues. With the efforts of all our employees, we look forward to reducing the incidence of traffic accidents.



▲ Traffic safety promotion at departmental safety and health meeting

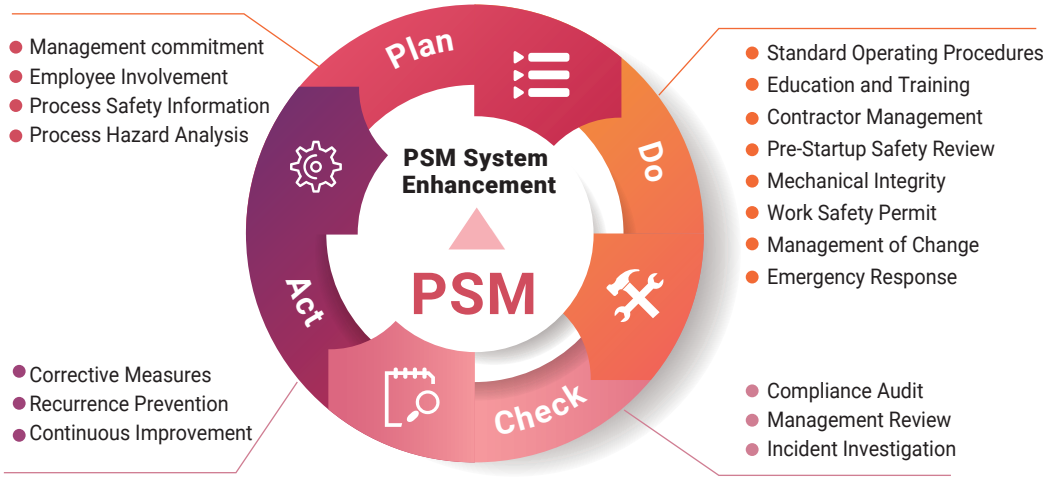
Contractor Safety Management

DCC encourage contractors to improve their autonomous management and facilitate a positive cycle. CCPG have formulated the "Engineering Contractors Occupational Safety Management Reward Measures", and rewards contractors with excellent health and safety performance. Contractors are rated based on five aspects: meeting involvement, number of work accidents, number of violations, document review, and site management. As well as this, a comprehensive evaluation is conducted on a regular basis.
In 2022, DCC continued to strengthen the contractor management mechanism by reexamining the appraisals of each factory's contractors and revising the procedure book to include the number of people entering the factory and scores for severity of violations. Items for bonus points for contractors who promote health and safety education and accident review programs were added in a bid to motivate contractors to enhance their health and safety management. In 2022, 29 excellent vendors were selected and awarded NT$460,000. By taking the approach to give both rewards and fines, our contractors are guided to improve their safety management, facilitating a robust competitive cycle. In the future, implementation data will be collected in order to utilize operating procedures and improve the appraisal system.

▲ Awarding excellent contractors

Process Safety Management

DCC's Process Safety Management (PSM) platform was developed based on 14 management units of three major frameworks: occupational safety, process safety, and mechanical integrity. The overall PSM performance indicators, audits, management meetings, and related technologies from each factory are incorporated. The safety protection net is built and improved with the commitment of top-level management and involvement of all employees, combined with various elements of PSM to allow the Plan-Do-Check-Act (PDCA) process to continue to be refined.



2022 Process Safety Metrics

Tier 1 No. of Process Safety Events (PSE 1)	2
Tier 2 No. of Process Safety Events (PSE 2)	2
Tier 1 Process Safety Event Rate (PSER) (PSE1R)	0.11
Tier 2 Process Safety Event Rate (PSER) (PSE2R)	0.11
Tier 1 Process Safety Event Severity Rate (PSE1SR)	0.17
No. of Process Safety Near Miss Notification	67

Note 1: The abbreviation here is CCPS (Center for Chemical Process Safety), which differs from SASB but has the same definition (PSE, PSE1R, PSE1SR are called PSIC, PSTIR, PSISR in SASB).
Note 2: Process safety event rate (PSE1R) = Annual number of Tier 1 process safety events x 200,000* / Total number of hours worked by workers (all employees and contractors).
Note 3: Process safety event rate (PSE2R) = Annual number of Tier 2 process safety events x 200,000* / Total number of hours worked by workers (all employees and contractors).
Note 4: Process safety event severity rate (PSE1SR) = Annual total score of Tier 1 process safety event severity x 200,000* / Total number of hours worked by workers (all employees and contractors) (the total score of annual process safety event severity is a classification of the number of process safety events through the process safety incident severity level).
*: Refers to the rate per 100 employees for 50 weeks per year with 40 working hours per week.

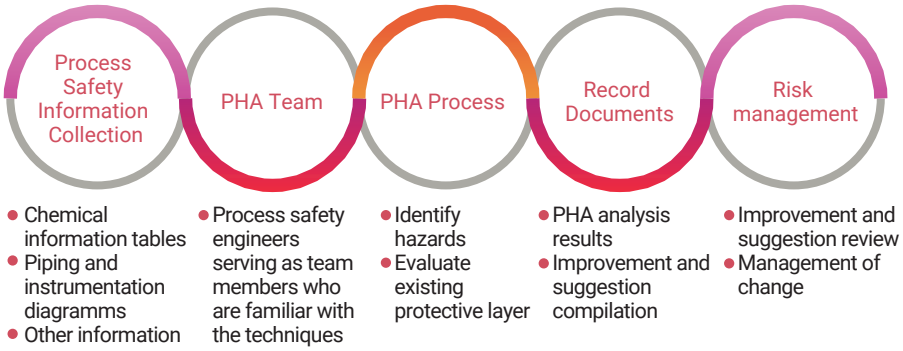
Establishment of Process Safety Performance Indicators

The performance of Process Safety Management (PSM) for DCC can be tracked through process safety performance indicators. A total of four process safety incidents occurred at DCC in 2022, with one incident resulting in one injury. The head office also intervened and initiated an investigation while parallel improvements were made in each factory. According to Heinrich's Accident Triangle, there are 300 false alarms behind every incident that causes a major injury. At DCC, an incident investigation team is formed for due diligence for each process safety incident and false alarm. Aside from this, each relevant unit will be requested to investigate and improve according to the deficiency. By taking a proactive approach, we hope to reduce the frequency of false alarms in order to reduce possible major incidents.

Process Hazard Analysis (PHA)

Process hazard analysis is a major focus of Process Safety Management (PSM); it helps DCC identify hazards at an early stage. It also posts great benefit to process risk management in terms of personnel training, operations, process improvement, equipment maintenance, and contingencies. In 2022, DCC had 5 process safety junior engineers who were dedicated to Process Safety Management (PSM) promotion and implementation.
The PHA (process hazard analysis) team is formed by professional process, mechanical, instruments and electronics, and safety and health personnel. Through brainstorming of possible hazards, a comprehensive risk management system is created to control hazards.

Process Risk Management Process



The process safety engineers are key players when it comes to planning the process progress and actual participation in PHA. Each year, the Company holds a PHA seminar to select a process with serious incident experience. Process personnel who are familiar with the incident, process safety engineers, and the PHA experts within the Group are gathered for joint discussion. By breaking the old departmental mindset, existing PHA results are reexamined to find potential defects and possible risks in design or operation. In doing so, we are able to strengthen the professional analysis ability of process safety engineers while also enhancing their proficiency and sensitivity.

Introduction of Alarm Management System

The accident investigation report of CSB found that ignoring alarms by the control workers was one of the main causes of accidents. As there are too many invalid alarms in the process, it is likely for control workers to ignore critical alarms. Due to this, immediate decisions based on the operating standards and past experience failed to be made. To reduce the impact of invalid alarms on process safety, the Company' s alarm management was conducted according to ISA-18.2. Alarms for processes of each department were integrated and classified with an intelligent system used to compile daily reports. Workers can reduce the number of invalid alarms by reviewing the daily report. In addition, an independent critical alarm panel has been set up in each factory to prevent the control workers from ignoring critical alarms and to increase process production safety and emergency response capabilities.

▲ Critical Alarm Panel

Safety Management Forum Exchange

DCC continues to exchange safety management with external entities to share practical experience and promotion regarding process safety management (PSM). This year, CCPG was also invited to take part in forums or events of related topics.

Seminar on Process Safety Achievement Presentation and Smart Prevention of Disasters

CHPSS organized a seminar on process safety achievements and smart prevention of disasters, attracting over 250 industry elites. This forum was directed by the Kaohsiung Labor Bureau with representatives across industries invited, including CPC, Formosa Petrochemical, CCPG, and CSC Group for experience sharing. The forum was designed to reflect on the effectiveness of PSM implementation through discussions and exchanges, providing academic and educational training for the safety management system of industries in various fields.

Practical Training on Electrostatic Hazard Prevention

With extensive research in electrostatic hazard protection, Lin Shu-Hong, the CCPG Executive Board Chairman, has published "Research on Filling Fluid Chemicals to Prevent Electrostatic Ignition". Due to this, the Northern Occupational Health and Safety Center, OSHA, invited the Company to share its practical experience in electrostatic safety to new labor inspectors of OSHA. Through practical approaches and experience sharing, the Company helped these labor inspectors better understand and familiarize themselves with possible electrostatic hazards in the workplace as well as disaster prevention and responses, enhancing their understanding and raising awareness in terms of workplace safety risks.

3.4.3 Response and management of major incidents

At DCC, our emergency preparedness and response plans are engineered in advance to prevent and eliminate possible loss of personnel, equipment and property due to accidents caused by disasters in the workplace.

When there is a chemical spill in the workplace, this may lead to possible fire, explosion, poisoning or accidental contamination; a major accident caused by a natural disaster that results in the above accidents; or handling of illegal intrusion, abnormal cargo, suspicious mail - all departments or factories must use the existing organization, manpower, and command system in the workplace to carry out countermeasures by all units in the workplace to mitigate damage, reduce personnel injury, while recovering the site as quickly as possible.

In 2022, DCC and CCPG jointly conducted a total of seven training sessions on toxic and hazardous chemicals of concern for professional responders, as well as five drills on spills and leakages and one training session on industrial firefighting. Aside from building up the capabilities of responders to effectively handle chemical spills, we also carry out focused firefighting training according to the characteristics of factory equipment and pipelines. By doing this, we enhance the team protection and firefighting skills of the self-defense firefighting team members of each factory and improve fire control in the early stages of a fire.

Management Approach of "Response and Management of Major Incidents"

Meaning of Material Issues	Major incident handling and contingency plans inadequate - more time required to complete response handling in the event of an incident may result in secondary disasters, endangering the health and safety of the response team and others, causing an impact on society and the environment. Causing a major impact on public safety, the local economy, and the entire industry as well as the environment and natural resources may result in process shutdown for several months, resulting in a huge impact on the entire upstream and downstream industry chain.
Responsibility	Taipei Head Office: Safety & Health Department, General Affairs Department Factory: Safety & Health Department, Factory Affair Department, Process Departments
Policy and Commitment	Comply with the regulations set forth by the competent authorities and take reference from international standards. We are dedicated to continuously enhancing response strategies, equipment and manpower, while applying the policy to responses regarding factories, shipping, public pipelines and underground pipelines.

Target

KPI	Short-term Target(2023)	Medium-term Target(2025)	Long-term Target(2030)
Funds invested and each drill session	Over NT$600,000 is invested each year Conducted more than three drills/training sessions		
DCC (Taiwan factories) Accumulated number of training sessions for professional responders	84	129	240

Action Plan

- More than N$600,000 is invested in industry-academia collaboration for emergency response training to establish a response protection network that completely covers the requirements of toxic and hazardous chemical substances of concern. Meanwhile, we continue to strengthen the emergency response capabilities and manpower of CCPG as well as relevant contractors. Furthermore, the training plan is reviewed on a yearly basis so that it aligns with the actual needs of CCPG.
- Continue to provide professional training so that the responders can quickly respond in the event of an accident in order to relieve the impact on society. We also allocate adequate responders to all shifts, allowing 24-hour response. Make good use of a firefighting/responder allocation system to review each shift for improvement.
- Conduct joint drills on transportation accidents with our transportation contractors to form a mutual understanding and familiarity with the chemical disposal process. In doing this, effective communication can be carried out to significantly reduce the required response time in the event of a transportation accident, while reducing the impact of chemical spills on the surrounding communities. The results of the drill are used to review whether the current response procedures and equipment preparation are appropriate.
- Carry out fire extinguisher training on industrial fire modules so that the self-defense fire personnel are familiar with the handling of equipment fires in the factory. In doing so, their ability to put out a fire in the early stage and prevent the expansion of a fire is enhanced.
- In the event of an accident involving CCPG's transportation joint defense organization during the transportation of chemicals in the transportation area, responders of a nearby production factory can immediately be dispatched for joint defense rescue, reducing disaster damage and avoiding secondary hazards.
- The achievement status of management objectives is ensured through review by the ESG Committee.

2022 Implementation Result

KPI	Achievement for 2022
Funds invested and each drill session	Spent NT$1,456,000 and conducted six drills/training sessions.
DCC (Taiwan factories)Number of training sessions for professional responders	77 trainees/sessions

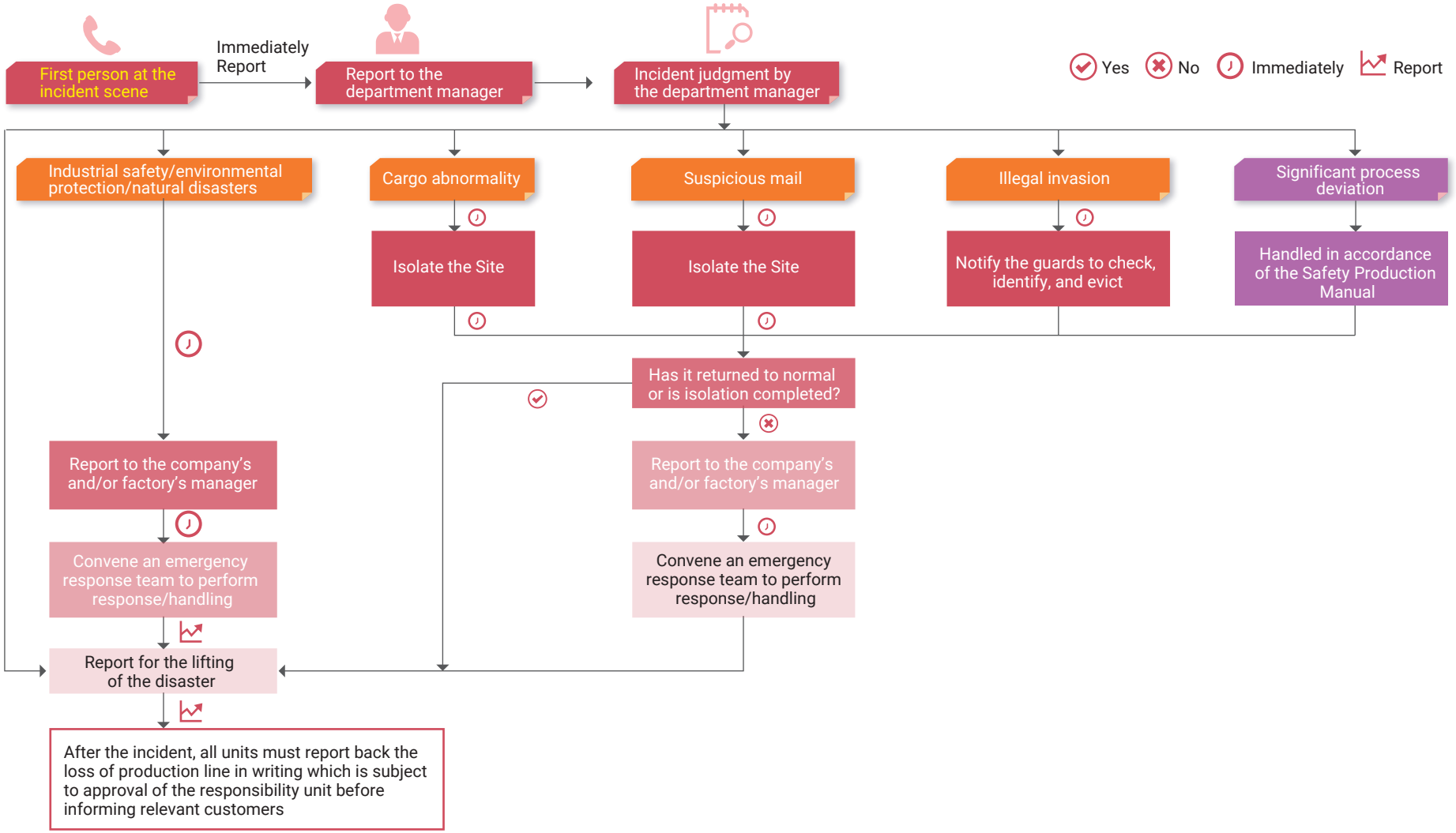
- Mailiao Factory and our friends in No.6 Naphtha Cracker industrial park Refinery jointly completed one large-scale allyl alcohol contingency exercise.
- Kaohsiung Factory's Pipeline Group 6 of the Regional Defense Organization received the Excellent Joint Defense Organization Award.
- DCC's each factories participated in the Formaldehyde Chang Chun Toxic Disaster Joint Defense Organization and Allyl Alcohol Toxic Disaster Joint Defense Organization, received the National Deep Cultivation of National Joint Defense Organization Award from the EPA.

Communication/ Grievance Mechanism

- Place contact information for Environmental Protection Bureau, fire brigade, hospitals and neighboring factories in each factory' s emergency response documents well as a proactive notification mechanism in case of an incident. External notification can be quickly completed at the early stage of the accident so that surrounding areas affected can immediately activate the shelter or evacuation mechanism.
- Build an APP that makes SDS available on mobile phones so that front-line responders can quickly check the characteristics of the chemicals carried by the truck using the vehicle registration plate to speed up the response process.
- Mailiao Factory and Dafa Factory take the initiative to inform neighboring communities of the suspension of operations and the situation with respect to anomalies, as well as the potential risks to operations in the hope of reducing the concerns of local communities and related units. We do our utmost to maintain a good neighboring living environment while keeping a sound community relation.
- Mailiao Factory takes part in the No. 6 Naphtha Cracker Environmental Evaluation Committee on a quarterly basis, as well as the annual public pipeline drill in No.6 Naphtha Cracker industrial park, while also conducting joint reviews with the relevant third parties and the competent authorities. Through ongoing communication and improvement of deficiencies, the Mailiao Factory strives to align its response capabilities with the actual situation. Furthermore, through the power of the joint defense of the industrial park, the impact of accidents on the environment and nearby communities is significantly reduced.

Emergency Response Procedures

To ensure smooth elimination in the event of an accident, handling processes on various scenarios of accidents are set in advance, with drills and reviews carried out by each factory's emergency response team on a regular basis. Through repetitive drills and improvements, we continue to optimize proficiency and response procedures of personnel.



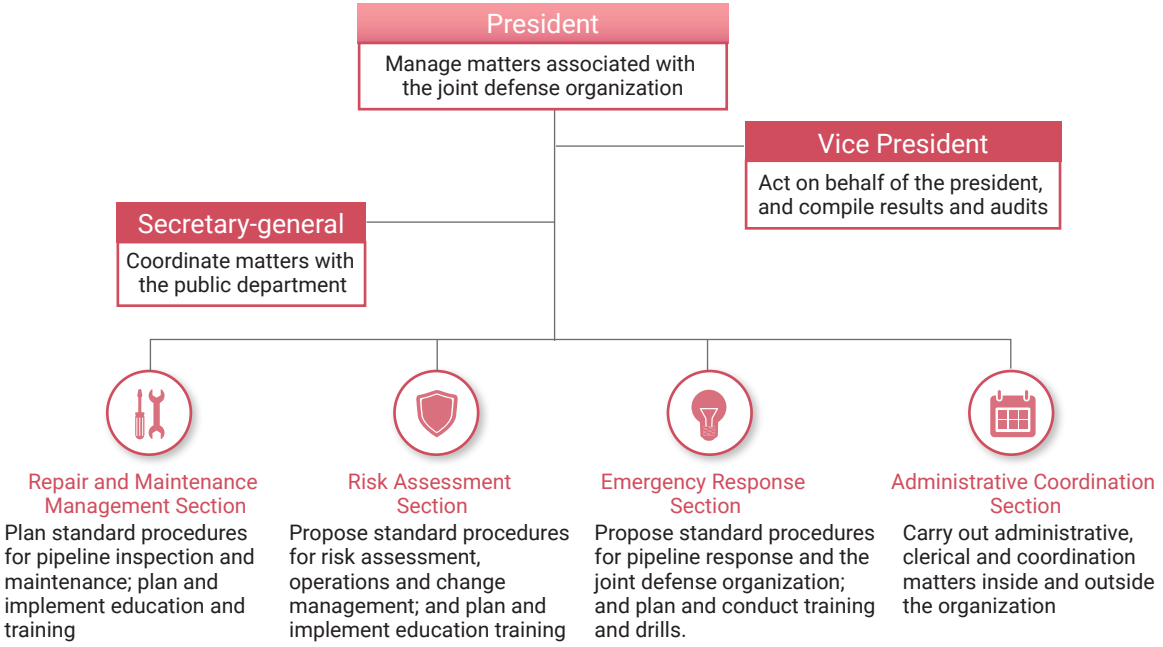
2022 Emergency Response Drill Plan

Mailiao Factory - Continues to Participate in Joint Drills of the Public Pipelines in the No.6 Naphtha Cracker industrial park

The public pipeline of the Mailiao Factory is part of the public pipeline system of the No.6 Naphtha Cracker industrial park in Mailiao. In order to familiarize employees with the relevant response actions and mechanisms, from 2017, the factory has performed large-scale joint response drills alongside the fire brigade, the pipeline team, and relevant response teams in the complex. By making this effort, the last line of defense for the safety of the public pipelines is strengthened and the impact of disasters minimized. In 2022, Mailiao Factory and the Formosa Plastic Group jointly completed one large-scale allyl alcohol contingency drill.

Emergency Response to Pipeline Transport Disasters

We strive for the continuous improvement of the autonomous management of underground industrial pipelines. We comply fully with applicable regulations of the competent authorities and implement comprehensive evaluation on the safety of pipelines. Each year, we formulate pipeline maintenance and prepare plans and ensure the normal and safe transport of raw material fluids through on-site electronic inspection of pipelines, a leak detection system, corrosion potential and closed-interval potential of regular inspection, inclusive management of regular pipeline thickness measurement, such as Intelligent Pig to prevent pipeline damage and leakage hazards. In addition, we raise public safety awareness and establish public relations of underground industrial pipelines through the joint defense organization.



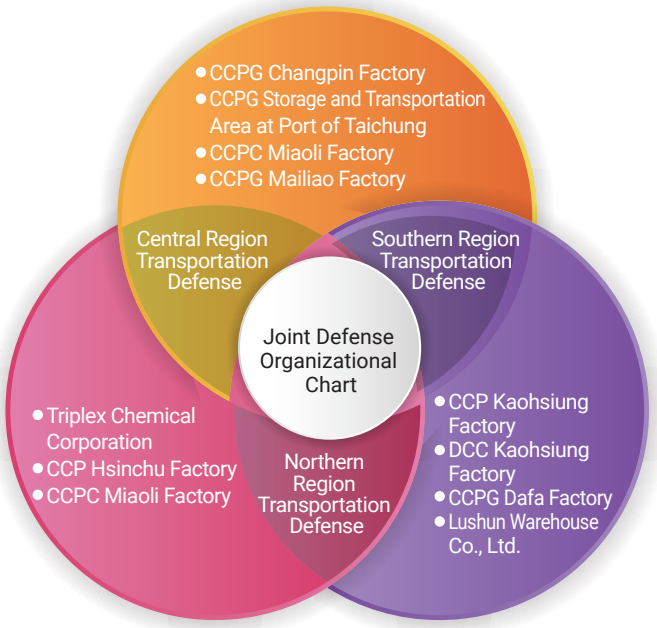
Kaohsiung Factory - Pipeline Group 6 of the Regional Defense Organization Received the Excellent Joint Defense Organization Award.

Kaohsiung Factory attained outstanding performances serving as the leader of the Risk Assessment Function Group of Kaohsiung City's underground industrial pipelines for Pipeline Group 6, and was selected as an excellent joint defense organization by the Industrial Development Bureau, MOEA in 2022.

Road Transportation

In an irregular event that involves chemicals tipping over as a result of a vehicle overturn or chemical leakage on the road, and in order to catch the golden hour to effectively reduce and control the scope of the chemical impact, while also planning and integrating the response capabilities of the Group's production factories in the Northern, Central, and Southern districts, DCC and CCPG have set up a Transportation Joint Defense Organization. In the event of an accident during the delivery of chemicals transported by the Company, the Organization can promptly dispatch responders from nearby production factories to perform joint first-aid, reducing disaster damage and avoiding secondary hazards.

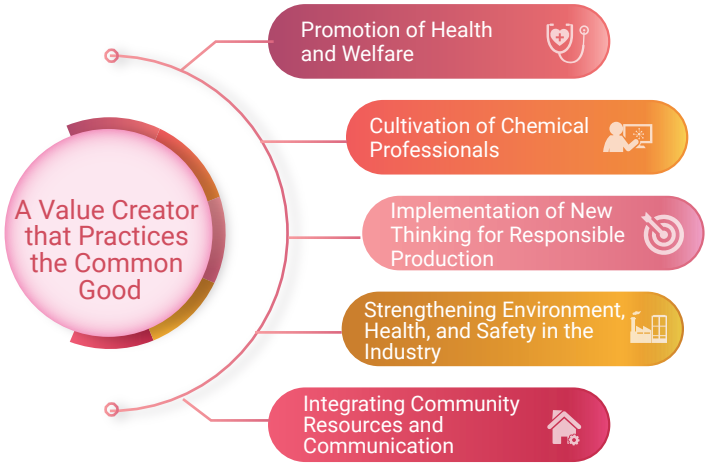
Furthermore, it is DCC's ongoing dedication to deepen the nationwide joint defense organization for the transportation of toxic and chemical substances, optimize procedures, and continue to improve response capacity. The Formaldehyde Chang Chun Toxic Disaster Joint Defense Organization and Allyl Alcohol Toxic Disaster Joint Defense Organization formed by the factories by DCC and CCPG and their transportation contractors separately received the first and second place in the Joint Defense Organization for Toxic Chemicals Online Scenario Planning by the Taiwan Responsible Care Association, and Deep National Joint Defense Organization Cultivation by the EPA in 2022.



3.5 Community Relations

At DCC, we hope to exert our own social influence by consolidating the efforts made by factories at home and abroad, and in doing so gather the strength for us to participate in community charitable events and give back to society for a long time. Through such kind and reciprocal interaction, we hope to convey a brand-new and positive image of the petrochemical industry to the public.

In response to the 17 Sustainable Development Goals (SDGs) proposed by the United Nations, we further assess the needs of our factories through surveys and interviews. At DCC, we focus on our five action axes of the common good values, including “1. Promoting Health and Welfare”, “2. Cultivating Chemical Professionals”, “3. Practicing New Perspectives of Responsible Production”, “4. Strengthening the Environment, Health and Safety in the Industry”, and “5. Integrating Community Resources and Communication”. The primary concerns of SDGs include SDG3, SDG9, and SDG12 and other secondary concerns include SDG6, SDG14, and SDG15. In the future, we will continue to emphasize the importance of these 5 action axes to proactively integrate internal and external resources, invest in different fields and work with local communities to jointly create a sustainable future.



Note:For Axis 3: Practicing New Perspectives of Responsible Production, please refer to 1.2.1 Green Processes and Product.

In 2022, DCC Took Part in a Total of 62 Social Contribution Projects in Taiwan and Overseas

Promotion of Health and Welfare

In 2022, DCC participated in many blood donation, beach cleanup, and park tidy-up activities. Through these concrete actions, we hope to strengthen the notion of health and environmental protection awareness of our employees, their families, and local people.

Beach Clean-up in Northern Taiwan

DCC, CCP, and CCPC in Taiwan held two beach cleanups and one park tidy-up in 2022. Our employees and their families were also invited to make a difference for a cleaner environment.

Employees and family members of the DCC Taipei Company, CCP Hsinchu Factory, and CCPC Miaoli Factory gathered at the Miaoli Waipu Fishing Harbor to clean up the beach. A total of 225 people participated in the cleanup, picking up 281 kilograms of trash. Through the cleanup, participants’ efforts paid off as the original appearance of the natural environment was restored.

2022 Blood Donation

At DCC, nine blood donation events were held in Taiwan and overseas factories, donating a total of 587 bags of blood.

Park Tidy-up in Southern Taiwan

Employees and family members of the DCC Dafa Factory, DCC Kaohsiung Factory and CCP Kaohsiung Factory got together to clean up the Kaohsiung Metropolitan Park. A total of 246 people participated in the tidy-up, picking up 60 kilograms of trash, making an effort in the sustainability of the environment.

Beach Cleanup by Overseas Factory

Employees and family members of DCCM conducted a beach cleanup locally, picking up 185 kilograms of trash. Through this event, not only was parent-child interaction enhanced, the awareness of environmental protection was also strengthened.

Participation in Local Beach Cleanup

132 employees of the DCC Mailiao Factory participated in 23 beach cleanups organized by government bodies and companies. Through beach cleanups, the awareness of environmental protection among employees increased to further protect the marine environment and ecology, fulfilling our corporate responsibility.

Cultivation of Chemical Professionals

DCC makes efforts and contributions to promote education through its core competencies and resources. We continue to build close bridges with local schools and help students understand industry-related knowledge and development. By doing this, we broaden the horizons of students and deepen the industry's talent capital.

"DCC Scholarship"

DCCJS and the Yizheng Technician College established the "DCC Scholarship", which was granted to six outstanding chemical students in 2022.

Chemical Controller Skills Enhancement Course

DCCJS partnered up with the Yizheng Technician College to offer a chemical controller skills enhancement course designed to enhance professional skills, with a total of 22 colleagues obtaining a certificate in 2022.

International Firefighters' Day

In response to International Firefighters' Day, DCCM donated money to the local fire department to thank them for their contribution and dedication.

Strengthening Environment, Health, and Safety in the Industry

"Environmental Protection as a Priority and Safety First" is the duty-bound responsibility and obligation of operators and employees of CCPG. As one of the members of the CCPG Group, DCC share our expertise in industrial safety, and we hope to be jointly committed to maintaining the environmental safety of community residents with local governments, neighboring companies, and communities.

COVID-19 Donation

During the COVID-19 surge, not only did we do our part to prevent the disease, we also made an effort to donate supplies such as bleach and masks.

Donation of COVID-19 Supplies and Daily Necessities to Children and the Elderly in Care Homes

CCDPJ donated six cases of disinfectant, 500 medical masks, and a variety of daily necessities to the Panjin Social Care Home, conveying our care and love to the children and elderly of the care home during the pandemic.

Integrating Community Resources and Communication

DCC took the initiative to participate in events held in communities according to the needs of the local people. By doing this, we bring the company and local residents closer together while maintaining diverse and smooth communication outlets with the chief of the village, the community and the residents.
We provide an assortment of resources to give back to society, hoping to inject some warmth into society.

Local Community Communication and Management

Care for Neighborhood Safety

I. Neighborhood safety is taken into account during the management processes of DCC's factories, as summarized in the following:

(I) Reduction of Pollutant Emissions:

At DCC, we do our utmost to minimize the negative impact on the environment, in particular by reducing pollution emissions, and using processes and technologies that are more environmentally friendly. Moreover, environmental protection-related procedures have been established to protect the safety of DCC's neighbors. These procedures include: "Procedures for Environmental Compliance" and "Automatic Continuous Monitoring and Testing at Outlet of Effluent and Notification Process", providing local residents with a good environmental quality.

(II)Regular Inspection of Production Equipment:

The equipment of all DCC's factories are inspected on a regular basis to ensure normal operation and timely repair of any damage or malfunction. All factories follow equipment inspection-related procedures, such as the "Procedures for Management of Maintenance of Equipment and Tools", "Procedures for the Application for Inspection of Dangerous Machinery and Equipment", and "Procedures for Zero Disaster Promotion", making an effort to ensure the safety of our neighbors. DCC did not have any major equipment abnormalities in 2022, providing a good and safe living environment for local residents.

(III)Production Safety Training for Operators:

In a bid to ensure the safety of production operations, DCC provides necessary safety training to its employees to ensure the best safety practices are followed during the process of operations and potential accidents are prevented. The Group has established an "e-Learning Platform" targeting production safety training for operators, with training courses covering chemical processes, environmental protection, safety and health, instrumentation and electrical control, mechanical safety, and technical design. Statistical analysis is conducted according to the individual learning map of each trainee with training progress management and regular refresher training notifications executed. Tests are also available for evaluation and the evaluation results are included in the appraisal assessment by the Human Resource Department.

(IV)Collaboration With the Local Government:

DCC keeps in close contact with local governments where the factories operate to better understand local regulatory requirements. DCC also ensures that its operations are in line with the local environmental and safety standards.

(V)Neighborhood Communication Outlets:

DCC's factories have open communication outlets and maintain close contact with neighbors, while at the same time actively responding to questions and feedback. In doing so, we are able to enhance the trust of the community in the factories and help factories understand the needs and concerns of local residents. The person discovering a petition case of an abnormity reported by the community or the recipient of the information must inform the Safety & Health Department or the relevant authority department via email or telephone, and it must be immediately and appropriately handled. The handling, replying, and recording of the petition will be carried out by the Factory General Manager's Office, Management Representative, and the Safety & Health Department.

Implementation Protection

DCC strives for environmental protection and performs environmental monitoring on a quarterly basis, with the monitoring items including air quality, noise and vibration, soil, and other environmental protection measures.

(I)Air Quality:

For the sensitive points during the construction period outside the factory, fences or dikes were set up at the perimeter of the site. Sources of fugitive dust such as construction materials, gravel, earth, or waste that were piled inside the base were covered with dustproof cloths or nets to suppress dust. When excavation works were being performed, steel plates were laid down on the main access road for vehicles or on the base ground where there were no construction works. By doing this, we were able to control dust from the movement of vehicles.

In the case of any abnormality, relevant units must be informed and a contingency plan taken immediately. During the operation of the factory, air pollution prevention equipment must be installed according to the contents of the Environmental Impact Assessment. As well as this, the original supplier must be engaged to maintain and repair the equipment on a regular basis. Newly added processes must be handled in accordance with the "Standards for Air Pollutant Emission from Stationary Pollution Sources". For full details on air pollution emissions management, please see "2.5 Air Pollutant Emissions Management".

(II)Noise and Vibration Monitoring:

The main sources of noise generated in DCC are blowers and cooling towers. The entrances and exits of equipment are equipped with sound proof, noise-absorbing cotton and FRP noise-absorbing barrels to effectively reduce the impact of noise and vibration on nearby residents.

(III)Groundwater and Soil Testing:

Soil and groundwater of DCC's factories are regularly tested. The results of soil and groundwater testing of DCC's factories in 2022 all met regulatory standards.

Maintaining Neighborhood Relationship

DCC has long supported and sponsored the activities held by neighboring communities and has established good exchange and communication channels with them.

Caring for Students

Support of the "2022 Kaohsiung City Interdepartmental GHG Reduction" Program

The DCC Dafa Factory supported the "2022 Kaohsiung City Interdepartmental GHG Reduction" program initiated by the Environmental Protection Bureau Kaohsiung City Government to help Kaohsiung Municipal Daliao Junior High School and Chaoliao Elementary School replace energy-saving lighting, air-conditioning equipment, and so on. By doing this, energy consumption and carbon dioxide emissions are reduced. Green space on campus was also adopted to provide students with a better learning environment through the maintenance of green spaces.

Donating Money for New Teaching Equipment and School Building Maintenance

DCCM donated funds to Foon Yew High School - Seri Alam, SJK (C) Nam Heng, and SJKC Ladang Grisek for new teaching equipment and school building maintenance, improving the students' learning environment and hardware facilities for students.

Caring for the Disadvantaged

Funds Raised to Help Disadvantaged Elderly in the Community

Colleagues of the DCC Dafa Factory raised money to purchase 100 bags of rice and 10 boxes of cooking oil for the Daliao Huashan Social Welfare Foundation. These donations were made through the "Chang Chun Dafa Welfare Association" formed by employees, conveying the care and love to disadvantaged elderly citizens in the community.

Yizhen City Charity One-Day Donation

DCCJS continued to participate in the Yizhen City Charity One-Day Donation, taking practical actions to help disadvantaged groups and give back to society. In the same year, DCCJS received Yizhen City's "Best Charitable Unit".

Community Prosperity

Badminton Tournament

DCCJS held a badminton tournament, inviting teams from the Yizheng Technician College and various governmental bodies. Through sport, the relationship between the school and government has been drawn closer.

Tree Planting

Colleagues of DCCJS and the Sunshine Community residents planted trees in the factory to increase green spaces. This has also enhanced the relationship between us and the local community.

CH4 Integrity

As “integrity” is the cornerstone of DCC’s operations, corporate governance, legal compliance and risk management have been incorporated into the management of the group-level. In 2017, we formed an ESG Committee to strengthen ESG management. As required by the FSC, we promote the Corporate Governance 3.0 – Sustainable Development Roadmap, including introducing the Sustainability Accounting Standards Board (SASB) and Task Force on Climate-related Financial Disclosures (TCFD). As well as this, we will implement the Sustainable Development Goals (SDGs) and follow the sustainable development roadmap to create a complete sustainable development (ESG) ecosystem, strengthening our international competitiveness.

4.1 Corporate Governance and Sustainability
4.2 Smart Manufacturing

Corresponding Material Sustainability Topic

Legal compliance

Corporate governance and integrity

	KPI	Achievement for 2022	Short-term Target (2023)	Medium-term Target (2025)	Long-term Target (2030)	Corresponding SDGs
Legal compliance	Legal compliance and human rights training completion rate	100%	Remain 100% every year (Excluding new hires within the previous three months, those on unpaid parental leave, and those injured or ill)			16 PEACE, JUSTICE AND STRONG INSTITUTIONS
	Track and change the internal control system or contractual terms and conditions to align with changes in laws and regulations	Revised 8 internal control regulations and 13 standard contract templates	Number of cases actually executed			
	Provide the up-to-date legal information to the several factories for them to identify their legal compliance rate	100%	Remain 100% every year			
	Number of cases of violations of laws or regulations in the aspect of business ethics that are considered material (i.e. subject to a penalty of NT$1 million or more)	0 cases	Remain zero occurrence every year			
Corporate governance and integrity	Conformity of intra-Group business ethics	92% The conflicts of interest form failed to meet the requirement of immediate voluntary reporting	95%	95%	98%	16 PEACE, JUSTICE AND STRONG INSTITUTIONS
	Assessment of anti-corruption risk	Low anti-corruption risk	Maintain a low anti-corruption risk every year			

4.1 Corporate Governance and Sustainability

At DCC, we insist on operational transparency and have established a board of directors in accordance with the “Company Act” and the “Securities and Exchange Act.” We also attach importance to shareholders’ equity and employee benefits. For some time now, the Board of Directors has continued to improve its corporate governance system and carried out self-assessments as a means to raise the awareness of the employee’s legal compliance and supervision and management of subsidiaries. In doing so, we are also able to deepen the Group’s corporate social responsibilities and emphasize the concept of sustainable development as well as maximizing the interests of our stakeholders. Starting from the Group’s industry, we focus on corporate governance, environmental protection, and social relations, determined to create a beautiful life for society with our heartfelt products and services.

4.1.1 Corporate Governance

“Corporate Governance and Integrity” Management Approach

Meaning of Material Issues	DCC is a firm believer that, by maintaining a transparent, open and efficient corporate governance mechanism and adhering to strict compliance of applicable laws and regulations, we can lead our Group to stable and sustainable growth. The Group has formulated a comprehensive anti-corruption policy and regularly conducts anti-corruption risk assessments and audits to prevent the occurrence of corruption. By doing this, we are able to foster fair competition and social justice, reducing injustice to the disadvantaged groups and enhancing the well-being of society.
Responsibility	Financial Department, Auditing Office, Legal Department
Policy and Commitment	As “integrity” is DCC’s operating philosophy, we do our utmost to improve our corporate governance structure, strengthen the functions of the Board of Directors, while attaching great importance to legal compliance. Moreover, we have formulated a regulatory identification system and a risk management mechanism and take responsibility for our stakeholders, achieving sustainable operations.
Target	KPI: Conformity of intra-Group business ethics — Short-term Target(2023): 95% — Medium-term Target(2025): 95% — Long-term Target (2030): 95% Assessment of anti-corruption risk — Maintain a low anti-corruption risk every year
Action Plan	● Hold a Board of Directors’ meeting at least once a quarter and fulfill the responsibility of guiding and monitoring the company’s strategy, major business operations, and risk control management. ● Perform internal audits in accordance with the internal audit measures to ensure that the Group’s internal operation is free from fraud. ● Carry out an annual business ethics risk assessment and take countermeasures or control measures for potential risks. ● Annually perform an internal audit of business ethics, and propose corrective measures for non-conformities. ● Continue to disclose financial reports and sustainability reports each year to enhance the transparency of information.

2022 Implementation Result	KPI	Achievement for 2022
	Conformity of intra-Group business ethics	92% The conflicts of interest form failed to meet the requirement of immediate voluntary reporting; for more details, please see 4.1.2 Risk Management - Internal Control Risk Management.
	Assessment of anti-corruption risk	Low anti-corruption risk

Communication/ Grievance Mechanism

- Internally, the Company has the "Employee Grievance Operating Procedures"; externally, emails are available on the website: ccpgaudit@ccp.com.tw / CCPGLG@ccp.com.tw, providing employees and stakeholders outlets with a communication bridge to make complaints anonymously.
- The Company's grievance investigation system and whistleblower protection mechanism are implemented in accordance with the "Grievance Investigation Operating Procedures."

Performance Evaluation Methods and Results

The Auditing Office performs an internal control evaluation on an annual basis. Results are submitted to the Board of Directors, and nonconformities and recommended improvements are included in the system for control and are constantly monitored until improved.

DCC's corporate governance is effectively supervised and strategically guided by the Board of Directors of each company. The dedicated auditors perform an operational audit on each company and department to ensure there is no fraud, and that the information is correct and disclosed in a timely manner and laws and regulation are complied with in all business operations. Through the audit report and financial statements, supervisors are able to get a grasp of the company's actual operating situation and make suggestions.

Secondly, in principle, a Board meeting is convened once every quarter and will increase in frequency when necessary. The Board of Directors receives management team reports, including one from the President, on a quarterly basis, and engages in dialogue with members of the management team. The management team proposes Company visions and strategies to the Board of Directors. The Board of Directors then evaluates the feasibility of Company strategies and supervises the timeline for completion.

2022 Composition of Directors (Including Independent Directors) and Supervisors

Company		DCC	
Age	Gender	Number of People	Percentage
20-30 Years Old (Inclusive)	Male	1	5%
	Female	0	0%
30-50 Years Old (Inclusive)	Male	3	15%
	Female	0	0%
51 years old (and Above)	Male	11	55%
	Female	5	25%
Number of meetings (including interim Board meetings and regular Board meetings)		8	
Attendance of Directors		86%	

In 2022, eight meetings of the Board of Directors were held according to business requirements and some clauses of the "Procedures for the Acquisition or Disposal of Assets" and the "Regulations Governing Procedure for Board of Directors Meetings" were amended. As required in the "Regulations Governing Internal Control Systems", self-assessment audits on internal controls for 2022 were performed, further improving the Company's operating procedures while enhancing the Board's legal compliance on corporate governance.

The selection process of directors and supervisors of DCC is carried out in accordance with law and regulations as well as a stringent selection evaluation process. In addition to taking into account professional management ability, we also attach importance to personal integrity and leadership ability to ensure the professionalism and independence of the directors and supervisors so that they are able to provide the most appropriate strategic guidance for the future development of the Company. Doing this enables us to make further improvements to the Company's operating procedures and enhancements of the Board of Directors in terms of improving corporate governance and compliance.

The professional qualifications of the Board members and supervisors and related discussions have been disclosed in the Company's Annual Report. For the corporate governance structure of DCC, please visit the official website - Management Organization.

4.1.2 Risk management

In line with the Group's value, DCC effectively grasp business risks and opportunities, while evaluating related issues that may pose a certain degree of impact on sustainable operations. We divide risk management into eight major aspects and each authorized and responsible department proposes countermeasures for high-risk issues according to their frequency and severity of occurrence. Moreover, management is conducted by following the process of Plan-Do-Check-Act (PDCA) and the effectiveness is reviewed and followed up on in periodic management review meetings. To handle the impact as a result of climate change, we introduced the Task Force on Climate-related Financial Disclosures (TCFD) in 2019. With TCFD, we are able to identify risks in advance. In 2021, we performed our first assessment of labor rights and business ethics risk, aiming to continue to strengthen CCPG's management system while reducing possible operational impacts.

Eight Risk Management Aspects

Legal Compliance

"Legal Compliance" Management Approach

Meaning of Material Issues	DCC is a firm believer that, by maintaining a transparent, open and efficient corporate governance mechanism and adhering to strict compliance of applicable laws and regulations, we can lead our Group to stable and sustainable growth. In addition, DCC has improved its regulatory identification system to fully identify applicable laws and regulations to reduce the occurrence of violations. At DCC, we are committed to implementing various practices to maintain a fair competitive environment and prevent social problems such as human rights and labor violations to facilitate the development of the entire industry. We abide by environmental regulations in order to effectively prevent and reduce pollution and environmental damage, protect the ecological environment, and reduce the burden on society.
Responsibility	Legal Department
Policy and Commitment	As "integrity" is DCC's operating philosophy, we do our utmost to improve our corporate governance structure, strengthen the functions of the Board of Directors, while attaching great importance to legal compliance. Moreover, we have formulated a regulatory identification system and a risk management mechanism and take responsibility for our stakeholders, achieving sustainable operations.

Target

KPI	Short-term Target(2023) / Medium-term Target(2025) / Long-term Target(2030)
Legal compliance and human rights training completion rate	Remain 100% every year (Excluding new hires within the previous three months, those on unpaid parental leave, and those injured or ill)
Track and change the internal control system or contractual terms and conditions to align with changes in laws and regulations	Number of cases actually executed
Provide the up-to-date legal information to the several factories for them to identify their legal compliance rate	Remain 100% every year
Number of cases of violations of laws or regulations in the aspect of business ethics that are considered material (i.e. subject to a penalty of NT$1 million or more)	Remain zero occurrence every year

Action Plan	● A Legal Compliance Committee meeting is convened by the Legal Department every six months and a legal compliance management review performed at the end of the year. ● Risk Prevention: The Group organizes education and training on compliance and anti-corruption each year to deepen the legal understanding of employees. The Legal Department keeps a close eye on law and regulations at all times, and there is a "CCPG Regulatory Identification System" in place to identify possible legal risks involved in each business activity each year. ● Risk Handling: After an incident occurs or a report is received, CCPG will immediately establish a response team to handle the incident as quickly as possible according to its nature. ● Risk Management: The Legal Department convenes a Compliance Committee meeting every six months focusing on review and improvement on recent domestic, foreign, and internal incidents and updating the regulatory requirements of each country to reduce risks as much as possible.
2022 Implementation Result	See table below
Communication/ Grievance Mechanism	● Internally, the Company has the "Employee Grievance Operating Procedures"; externally, emails are available on the website: ccpgaudit@ccp.com.tw / CCPGLG@ccp.com.tw, providing employees and stakeholders outlets with a communication bridge to make complaints anonymously. ● The Company's grievance investigation system and whistleblower protection mechanism are implemented in accordance with the "Grievance Investigation Operating Procedures."
Performance Evaluation Methods and Results	A Legal Compliance Committee meeting is convened by the Legal Department every six months and a legal compliance management review performed at the end of the year.

KPI	Achievement for 2022
Legal compliance and human rights training completion rate	100%
Track and change the internal control system or contractual terms and conditions to align with changes in laws and regulations	Revised 8 internal control regulations and 13 standard contract templates
Provide the up-to-date legal information to the several factories for them to identify their legal compliance rate	100%
Number of cases of violations of laws or regulations in the aspect of business ethics that are considered material (i.e. subject to a penalty of NT$1 million or more)	0 cases

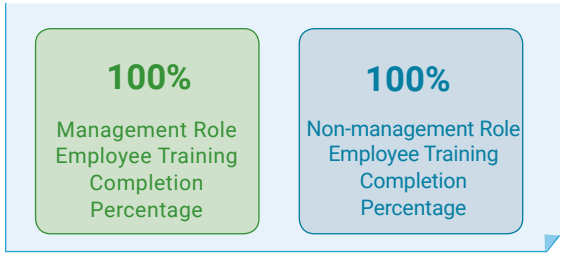
Note: Both environmental violations (subject to a penalty of NT$100,000 or more each) have been addressed and improved. Please refer to 2.1 Environmental Protection Strategy.

Establishment of the "Legal Compliance Committee"

We established the "Legal Compliance Committee" to ensure that the corporate governance and management activities of the Group meet the requirements of competent authorities. The President serves as the Chair of the Committee and members are made up of department managers, factory managers, and presidents of overseas factories. Self-assessments are conducted in accordance with the "Legal Compliance Management Regulations" and the Legal Department carries out on-site inspections alongside the audit units. The results of these audits are regularly reported to the Board of Directors. The Committee continues to follow up on the improvements made by those units with deficiencies in order to help the Group enhance the sensitivity of legal compliance. The Group have set up the "CCPG Regulatory Identification System" to identify new laws or regulations or legal changes. In 2022, a total of 89 laws and regulations were identified, allowing all operations to be on par with the latest laws and regulations.

Education and Training on Regulatory Compliance and Human Rights

Since 2017, directors, supervisors, management, and non-management employees of DCC's Taiwan factories have been completing education and training on regulatory compliance and human rights and passing tests on e-Learning. From 2019, DCC has been conducting education and training on regulatory compliance and human rights each year, with the overall education and training rate reaching 100%, further implementing the Company's ethical standards.



Note 1: Management Role - entry-level manager (inclusive) and above; Non-management Role - general employee.
Note 2: For detailed information on each factory for 2022, please refer to Appendix D.

Conveying of Anti-Corruption-related Policies

For our internal employees, we use channels such as announcement boards and E-mail to convey information associated with anti-corruption. As of the end of 2022, we completed communication with 163 management personnel and 1,486 non-management personnel, with a communication ratio of the entire Company reaching 100%. In March 2020, we released the "CCPG Anti-bribery and Anti-corruption Commitment" on our official website; in June 2021, we further disclosed to all employees the "Integrity Clause for CCPG & Related Enterprises," so as to demonstrate our determination in the matter of bribery and corruption. We have also included such notions in our 2021 education and training on regulatory compliance and human rights to strengthen employee awareness. For external entities, we require suppliers and contractors to sign the Supplier Code of Conduct (please see 1.3.1 Responsible sourcing) to effectively engage in anti-corruption communication. In July 2022, the Company published "DCC's independent Anti-bribery and Anti-corruption Pledge" on the official website.

Employees or stakeholders suspected of involvement in unlawful activities or violations of the Code of Conduct may be reported (please refer to Stakeholder engagement) via confidential channels, including the reporting hotline and mailboxes. The Company will conduct an investigation and disciplinary action to prevent related incidents from recurring.

Internal Control and Risk Management

Each company of the Company has an Auditing Office under the Board of Directors, and "Internal Control Systems" and "Internal Audit Enforcement Rules" are formulated in line with the company's scales and characteristics. An independent internal audit system reviews whether the Company comply with laws and regulations, internal regulations and operating procedures. Moreover, an internal control evaluation is conducted and reported to the Board of Directors every year. The Company's "Statement of Internal Control" is issued based on the internal control evaluation result.

In 2022, the Auditing Office conducted routine project audits and topic audits of the internal control cycle at irregular intervals on the DCC factories and overseas subsidiaries. We also conduct continuous computer audits using audit software. A total of 14 recommended corrections were proposed for that year (see below statistics), and a total of 9 corrections were completed; there were 5 long-term corrections still in progress, which had been incorporated into the control system for them to be tracked until they are completed.

To implement the integrity management policy, we further published the "Business Ethics Audit Operating Procedures" in 2021, against which we perform an internal audit on the Taipei Company and the 7 domestic and overseas factories at home and abroad at least once a year, and the conformity rate should be 95% or more. The Company's audit compliance rate for business ethics in 2022 was 92% as the conflicts of interest form failed to meet the requirement of immediate voluntary reporting. We will continue to reinforce employee awareness to improve the audit compliance rate.

Suggested Improvements and Corrections of the Internal Control Cycle

Internal Control Cycle	Recommended Corrections	Completed Corrections	Correction in Progress
Sales Cycle	2	1	1
Procurement Cycle	4	2	2
Production Financing	4	2	2
Financing Cycle	1	1	0
Other Control Operations	3	3	0
Total	14	9	5

> The Auditing Office has established an independent report mailbox - ccpgaudit@ccp.com.tw to encourage the implementation anti-corruption and anti-fraud operations. A report should be made in an event of an unlawful conduct committed by the Group's employees is discovered by an internal employee or external related party.

Financial Risk Management

The Company's financial risks are divided as follows:

1. Credit risk: With the primary objective being maintaining the quality of accounts receivable, we reduce the risk of financial loss arising from non-performance of contractual obligations by customers or counterparties of financial instruments, using credit check, credit rating, payment insurance, transfer of account, endorsement and guarantee, and margin. By doing so, we are able to reduce the risk of financial loss arising from non-performance of contractual obligations of customers or transaction parties of financial instruments.
2. Liquidity risk: Maintain cash, cash equivalents, highly liquid marketable securities and sufficient bank financing limit required for operations to ensure that the Company has adequate financial flexibility and liquidity.
3. Market risk: Carry out appropriate management on exchange rate and interest rate to control the level of exposure within an acceptable range.
4. Property risk: Operating assets are covered with various property insurances, such as fire insurance, property insurance, commercial general liability insurance, and cargo transportation insurance, to reduce the risk of loss of business assets and transfer part of the risk the insurance company in the event of a natural or non-natural disaster.
5. Tax risk: Regularly review (1) Transaction Relation Statistics; (2) Tax Payment Statistics; and (3) Changes in tax laws and regulations and official interpretation letters, and propose relevant prevention and improvement measures to avoid the tax preferences being lost or the tax risk costs being increased due to failure to accurately and effectively apply tax laws to our business activities.

Quality Risk Management

In 2016, the quality risk management system was formed. From the high-risk items identified by the annual risk matrix and the material change issues raised by "departmental internal and external issues" and "stakeholders and concerned issues," the risk level of the quality management system that may affect the Group's companies is evaluated. In doing so, countermeasures and control measures can be taken to reduce the impact on products and services and increase advantage in terms of competitiveness.

Environmental and Occupational Health and Safety Risks

By applying the requirements of the most recent version of ISO standards, risk evaluation operations are performed on activities and operations inside and outside the Company and factories. Furthermore, environmental sustainability is protected through chemical management, energy conservation and carbon reduction, and the circular economy, while reducing the Company's environmental, safety, and health risks proactively by promoting job safety analysis (JSA), standard operating procedures (SOP) for operation safety requirements, hazard and operability study (HAZOP), and labor health protection, as well as comprehensive emergency response procedures. Please refer to 3.4 Occupational Health and Safety.

Confidential Business Information Protection

To ensure that information of our employees, customers and stakeholders is safe, we have introduced the ISMS-Information Security Management System and TSMS-Trade Secret Management System, and have passed a number of information security certifications.

Information Safety

2016

- Passed the AEO (Authorized Economic Operator) quality company certification in 2016

2018

- Established a project team in 2018 to introduce EU's General Data Protection Regulation (GDPR) to comply with EU's regulatory framework and the privacy requirements of customers worldwide.

2019-2023

- Completed the Company's first GDPR data leak drill and GDPR classroom education and trainings in 2019, and did a GDPR online education and trainings and GDPR data leak drill at least annually in subsequent years.
- Introduced the SecurityScorecard cyber data security management system in 2020 and received an A rating for every year.
- Completed the first GDPR internal audit, including the Taipei Company and 7 factories (24 departments) in 2020. The audit was to check employees' compliance with GDPR and personal data protection awareness. The audit will be done annually in subsequent years.
- We have passed ISO 27001 verification each year since 2020.
- 2022

1. Formed Information Security Task Force
2. Conducted an email social engineering exercise for all employees with a completion rate of 99%.
3. Self-developed an email information analysis system and automatic information security threat blocking system for firewalls.
4. Expanded the ISO-27001 verification to the CCPG Hsinchu Factory, Changpin Factory, Mailiao Factory, Kaohsiung Factory, Dafa Factory, Dashe Factory, Zhangzhou Factory, Panjin Factory, Malaysia Factory, Yizheng Factory, and Singapore Factory, with certifications expected in 2023.
5. For the GDPR annual education and training, the training completion rate for the Taipei Company and seven Taiwan-based factories and three overseas factories was 99.6%.

Trade Secret System

Each year, CCPG holds an education and training session and an internal audit to raise the awareness of trade secrets protection as well as the Group's related measures, and to check the implementation status of the system.

Diverse Courses in 2022

Education and training was planned based on different roles to clarify the rights and responsibilities of employees managing confidential information in order to improve system implementation, further strengthening the protection mechanism of the Group's business secrets.

2022 Education and Training on Business Secret Systems

98.70%

Employee Training Completion Percentage

Note: Education and training scope - Taipei company and 3 factories in Taiwan.

2022 Trade Secret System - Internal Audit

- Audited units: Taipei company and 3 factories - a total of 42 departments.
- Audit items: Document classification control, business secrets system specification
- Deficiency correction: Deficiency reasons must be reviewed, corrective and preventive measures proposed, and improvement tracked. The 2022 correction rate of audit deficiencies remained 100%

42 No. of Auditing Departments

5 No. of Correction Notices

100% Correction Rate for Deficiencies

"As a means to handle issues regarding business secrets in a proactive manner, we have established a notification email security_tsaudit@ccpgp.com as an independent notification channel for internal and external related parties for immediate investigation and response, further reducing the impact on the Group."

Climate Change Risk Management

In recent years, with the impact of global climate change intensifying, CCPG came to realize that climate is no longer in a state a change, but a state of emergency. In 2019, we implemented the TCFD framework to identify related risks in advance to further reduce possible operational disasters brought along with climate change. For related risks and response strategies, please refer to 2.2 Climate Change Risks and Opportunities.

Labor Rights and Business Ethics Risk Management

In recent years, more and more stakeholders are placing importance on issues such as "labor rights" and "business ethics." At the end of 2020, we issued the "Operating Procedures for Labor Rights and Business Ethics Risk Management," which was published in March 2021 and the risk assessment on the entire Company was conducted for the first time. Countermeasures or control measures were adopted to reduce related risks. DCC formulates its human rights-related management policies in accordance with international human rights regulations. For more details, please see 3.1.1 Human Rights Policy.

Labor rights assessment items	Child labor/underage labor; forced labor; discrimination; complaints filing; working hours; incentives and discipline; freedom of association; salary and benefits, and so on.
Business ethics assessment items	Bribery and corruption, conflict-interest avoidance and gifts, legal compliance, trade secretes, intellectual property rights, and protection of personal data.

DCC COVID-19 Measures

Taiwan entered its COVID-19 peak in 2022. To cope with this, DCC formulated its disease prevention measures with reference to the government's COVID-19 policy. These measures were adjusted on a rolling basis in line with the government's policy updates.

Company COVID-19 Measures

- Temperature checking when entering the company and factory;
- Disinfection of the environment and hands;
- Wearing a mask in the company and factory;
- Dividing office area and working from home to reduce the risk of cluster infection.

For Confirmed Cases and Those Having Close Contact

- Upon notification of a confirmed case, the employee with a positive test can apply for sick leave and work from home, with all relevant units notified. High-risk personnel (co-workers who spent more than 15 minutes with the confirmed cases without a mask or colleagues seated nearby in the office two days prior to being tested positive) must take a COVID-19 rapid lateral flow tests;
- Disinfection of the office area where the confirmed case was identified;
- Tracking the health conditions of the confirmed case.

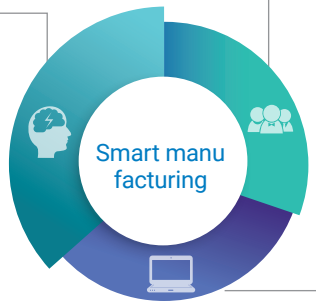
4.2 Smart Manufacturing

DCC applies a large number of advanced electronic information tools in productions, management, and information communication to improve production efficiency, strengthen quality management, and optimize environmental work safety and health mechanisms. This furthers integrates the information system of each factory in an effective manner to convey important management information in real time in order to quickly respond to customers' service needs.
With the evolution of information technology and companies moving towards internationalization, DCC will continue to use the most advanced electronic information technology to develop into a smart manufacturing company, achieving the Company's business philosophy.

Smart Manufacturing Application Field

Artificial Intelligence (AI)

- Product defect classification and deficiency detection
- Product real-time quality determination
- Automatic control process
- Predict equipment abnormality in advance based on irregular sounds
- Facial recognition system
- Production data dashboard
- Smart power plant
- Optimal unit load capacity and steam distribution



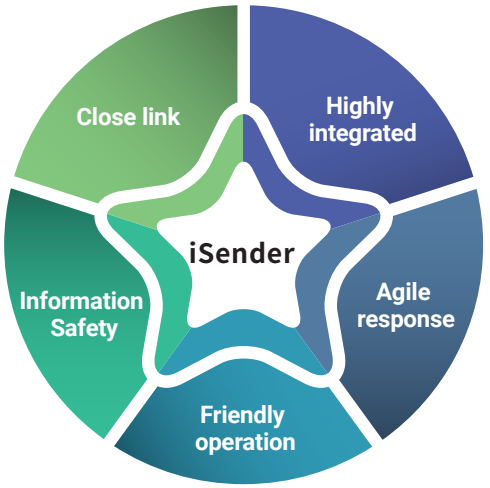
Enterprise Socialization - iSender

- Replaces desktop computers, supports cross-platforms, and view data directly on mobile phones
- Real-time mobile phone communication to promote team efficiency and information security

Digital platform of environmental protection regulations

- Real-time air quality monitoring
- Continuous monitoring of wastewater discharge ports
- Continuous monitoring of flares
- Laws and regulations identification for each factory
- Equipment availability factor monitoring

Enterprise Socialization - iSender

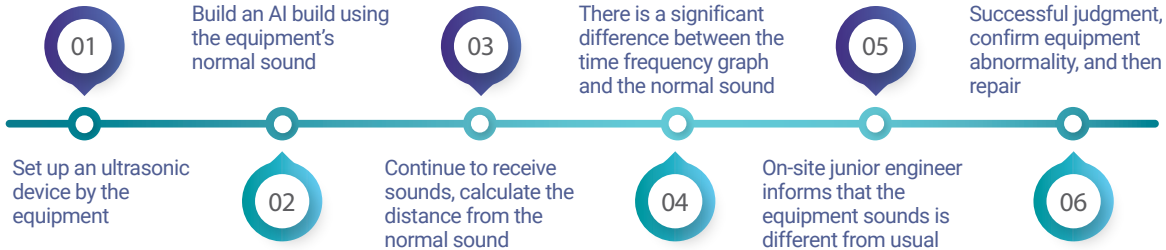


Our self-developed “iSender” is a power corporate internal real-time communication system, an indispensable tool for all employees. iSender has smooth basic communication and group discussion functions, as well as an announcement section so that each employee is able to get hold of important information in real time. Applying for leave, business trips, and overtime can also be done on the system. The friendly interface design makes the application steps easy, allowing colleagues to complete the process by clicking a few icons.

iSender is highly integrated with enterprise ERP to closely link with multiple enterprise systems, implementing the concept of the “Internet of Things”. Data of each factory can be sent to the manager’s mobile phone in a timely manner, allowing the manager to quickly grasp the situation and take preventive control. iSender is not just a general administrative system, but has gradually developed into industrial control, making the Company a pioneer of “Industry 4.0”. For a detailed introduction about iSender, please see “Innovation and Application of CCPC Community Power APP” written by Chairman Lin Shean-Tung of DCC.

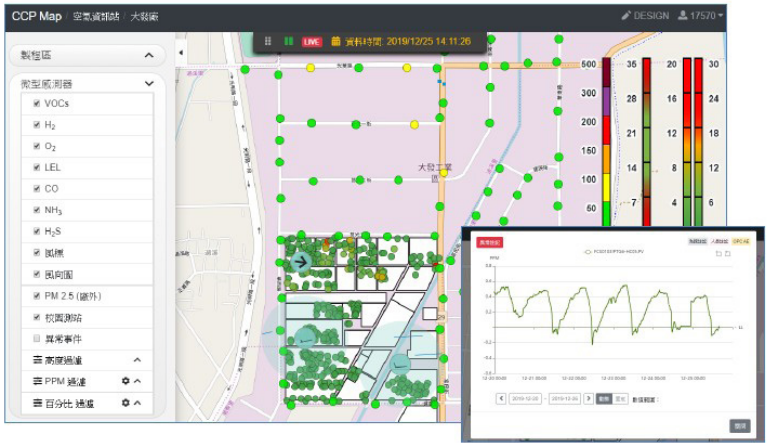
iEar Project - Early Confirmation of Abnormal Equipment With Abnormal Noise

With the smart manufacturing and transformation strategy in recent years, DCC has continued to develop a number of innovative projects, such as iEar. This idea came about when CCPG Executive Board Chairman Lin Shu-Hong noticed an abnormal noise when inspecting the factory. The equipment was found to be abnormal after an inspection was conducted. Afterwards, the Management Information Center attempted to simulate the experience of the CCPG Executive Board Chairman with AI and set up an ultrasonic recording device next to the equipment. AI was used to analyze the time frequency to successfully develop the function of automatic pre-warning to determine equipment abnormalities. This enables the production line to prevent equipment abnormalities early and avoid accidents. In the future, iEar will be integrated with iSender. If the abnormal noise of equipment is over the threshold value, an alarm will be sent to notify the relevant personnel. The abnormal audio has been included in the training course to determine the abnormal category through AI.



Self-developed Environmental Protection Digital Platform to Monitor Real-time Data

DCC also applies the same smart manufacturing spirit to environmental protection by developing an environmental protection digital platform that integrates and monitors relevant data of each factory which is connected to the Environmental Protection Agency. This allows top management of the Company and the Taipei CCPG HSE Division to grasp the situation at any time to strengthen internal control. If there is an abnormality in the data, iSender will notify the relevant personnel to handle the emergency response and maintain environmental safety.



Appendix

About this Report

This report is divided into four chapter: In terms of responsible production, we provide a safe production environment and continue with innovative research and development, and promise to provide product quality and services that meet customer expectations; in terms of low-carbon and sustainability, we foster a circular economy and implement pollution prevention while also fulfilling social responsibility for environmental protection; in terms of integrity, as integrity is the business philosophy the Company adheres to, we strive for proactive communication with stakeholders for a sustainable future; finally, in terms of social inclusion, we have spared no effort in cultivating talent and giving back to society. This report demonstrates DCC's commitment to sustainable development and society to achieve its business goals of environmental sustainability and corporate sustainability.

Company Name	Information Disclosure Scope
DAIREN CHEMICAL CORP. (DCC)	Mailiao Factory Dafa Factory Kaohsiung Factory
Chang Chun Dairen Chemical (Panjin) Co., Ltd.	CCDPJ
Dairen Chemical (Jiangsu) Co., Ltd.	DCCJS
CCD (Singapore) Pte. Ltd.	CCDSG
Dairen Chemical (M) Sdn. Bhd.	DCCM

Scope and Boundary of this Report

The scope and boundary of this report includes DCC Taipei Head Office, factories in Taiwan and 4 production factories abroad. Relevant information is provided as the table above: For more details, please see 1.1.1 Key Products and Location of Operation.

Reporting Period and Issuance Date

DCC issues a sustainability report of the previous year on a yearly basis. The "2022 DCC Sustainability Report" is issued in June 2023 and the disclosure period runs from January 1, 2022 to December 31, 2022. In order to represent changing trends, certain data in this Report covers data in the past three years (2020-2022). Where other data differs from the aforementioned disclosure scope, it will be specified in that chapter. If the currency is not specified, it shall be the New Taiwan dollar.

Report Preparation and Assurance

This Report is prepared by DCC's ESG Operation office, four ESG teams, all departments of the Taipei Company, all factories in Taiwan, and four factories abroad. All contents of the Report have been approved by ESG Committee to ensure their accuracy and that they meet the expectations of stakeholders.
The Company has entrusted Ernst & Young Associates (EY) to perform limited assurance in accordance with the Assurance Standards TWSAE3000 "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" (formulated with reference to International Standard on Assurance Engagements ISAE 3000) issued by the Accounting Research and Development Foundation (ARDF). The selected information, applicable standards and limited assurance report are enclosed in this Report.

Report Compliance Standards

The content and structure of this Report are based on the GRI Standards published by the Global Sustainability Standards Board (GSSB) and the GRI Standards, as well as the SASB Standards - Chemicals published by the International Sustainability Standards Board (ISSB). This Report fully represents DCC's policies and implementation performance regarding the management approach of the ESG material topics. For the SASB Standards and GRI Standards, please refer to the Appendix.

Contact

Please contact us if you have any questions regarding the contents of this report.

- ESG Operation office - Department Manager Lu Ming-Cheng
- Address: 2F., No. 239, Songjiang Rd., Taipei City 104, Taiwan
- TEL: 02-2500-1894
- E-mail：ccpgcsr@ccp.com.tw

Appendix 1: GRI Standards Corresponding Table

General Disclosures

GRI Standards	Topic-specific disclosures		Chapter	Page
GGRI 2: General Disclosures 2021	**The organization and its reporting practices**			
	2-1	Organizational details	1.1 About DCC	21
	2-2	Entities included in the organization’s sustainability reporting	1.1 About DCC 1.1.1 Key Products and Location of Operation	21 22
	2-3	Reporting period, frequency and contact person	Appendix About this Report	129
	2-4	Restatements of information	Appendix About this Report 2.3.2 Energy Conservation and Carbon Reduction Actions, and 2.6 Waste Management will be adjusted based on the data collected in 2022 as the reference.	129
	2-5	External assurance	Appendix About this Report Appendix Assurance Report of CPAs’ Independence	129 142
	Activities and workers			
	2-6	Activities, value chain and other business relationships	Introduction Sustainability Strategy 1.1 About DCC 1.1.1 Key Products and Location of Operation 1.3.2 Supplier management system	13 21 22 43
	2-7	Employees	3.1.2 Composition of Talent All employees of DCC adhere to the regular working hours prescribed by regulations and are not subject to the calculation method of full-time equivalent.	77

GRI Standards	Topic-specific disclosures		Chapter	Page
GRI 2: General Disclosures 2021	2-8	Workers who are not employees	1.3.2 Supplier management system 3.1.2 Composition of Talent All contractors of DCC adhere to the regular working hours prescribed by regulations and are not subject to the calculation method of full-time equivalent.	43 77
	Governance			
	2-9	Governance structure and composition	4.1.1 Corporate Governance For more details, please see the 2022 annual report of DCC	119
	2-10	Nominating and selecting the highest governance body	Introduction Sustainability Strategy 4.1.1 Corporate Governance For more details, please see the 2022 annual report of DCC	13 119
	2-11	Chair of the highest governance body		
	2-12	Role of the highest governance body in overseeing the management of impacts	Introduction Stakeholder Communication and Material Topic Identification Introduction Sustainability Strategy 3.1.1 Human Rights Policy	5 13 73
	2-13	Delegation of responsibility for managing impacts	Introduction Sustainability Strategy	13
	2-14	Role of the highest governance body in sustainability reporting	Introduction Sustainability Strategy	13
	2-15	Conflicts of interest	Introduction Sustainability Strategy 4.1.1 Corporate Governance For more details, please see the 2022 annual report of DCC	13 119
	2-16	Communication of critical concerns	Introduction Stakeholder Communication and Material Topic Identification	5
	2-17	Collective knowledge of highest governance body	Relevant measures have been planned in 2022, and disclosure is expected to be made in the 2023 Sustainability Report.	-
	2-18	Evaluating the highest governance body's performance		
	2-19	Remuneration policies	For more details, please see the 2022 annual report of DCC	-

GRI Standards	Topic-specific disclosures		Chapter	Page
GRI 2: General Disclosures 2021	2-20	Process to determine remuneration	As the Company is not listed on TWSE or TPEX, the establishment of a Remuneration Committee in accordance with Article 14-6, Paragraph 1 of the Securities and Exchange Act is not required.	-
	2-21	Annual total compensation ratio	3.3.1 Employee Benefits	86
	Strategy, policy and practice			
	2-22	Declaration of sustainable development strategy	Message From the Operator	2
	2-23	Policy commitments	Introduction Sustainability Strategy 1.3.1 Responsible Sourcing 2.1 Environmental Protection Strategy 3.1.1 Human Rights Policy 4.1.2 Risk management	13 41 50 73 121
	2-24	Embedding policy commitments	Introduction Sustainability Strategy 1.3 Sustainable Supply Chain Management 3.1.1 Human Rights Policy	13 39 73
	2-25	Processes to remediate negative impacts	Introduction Stakeholder Communication and Material Topic Identification 3.1.1 Human Rights Policy 4.1.2 Risk management	5 73 121
	2-26	Mechanisms for seeking advice and raising concerns		
	2-27	Legal compliance	Introduction Stakeholder Communication and Material Topic Identification 2.1 Environmental Protection Strategy	5 50
	2-28	Membership of associations	Introduction Stakeholder Communication and Material Topic Identification	5
	Stakeholder engagement			
	2-29	Approach to stakeholder engagement	Introduction Stakeholder Communication and Material Topic Identification	5
	2-30	Collective bargaining agreements	3.3.1 Employee Benefits	86

Material topic

GRI Standards	Topic-specific disclosures		Chapter	Page
GRI 3: Material Topics 2021	**Disclosures on material topics**			
	3-1	Guidance to determine material topics	Introduction Stakeholder Communication and Material Topic Identification	5
	3-2	List of material topics		

Topic Criteria

GRI 200: Economic

*Material topic

Topic	GRI Topic	Topic-specific disclosures		Chapter	Page
Economic Performance	GRI 201: Economic Performance 2016	201-2	Financial implications and other risks and opportunities due to climate change	2.2 Climate-related Risks and Opportunities	51
		201-3	Defined benefit plan obligations and other retirement plans	3.3.1 Employee Benefits	86
Market Presence	GRI 202: Market Presence 2016	202-2	Proportion of senior management hired from the local community	3.1.2 Composition of Talent	77
Legal compliance*	GRI 3: Material Topics 2021	3-3	Management of material topics	4.1.2 Risk management	121
	GRI 205: Anti-corruption 2016	205-2	Communication and training about anti-corruption policies and procedures	4.1.1 Corporate Governance 4.1.2 Risk management	119 121
		205-3	Confirmed incidents of corruption and actions taken	Introduction Stakeholder Communication and Material Topic Identification	5

GRI 300: Environmental

Topic	GRI Standards	Topic-specific disclosures		Chapter	Page
Energy	GRI 302: Energy 2016	302-1	Energy consumption within the organization	2.3.2 Energy Conservation and Carbon Reduction Actions Appendix B	58
		302-4	Reduction of energy consumption		
		302-5	Reductions in energy requirements of products and services		

Topic	GRI Standards	Topic-specific disclosures		Chapter	Page
Water and Effluents	GRI 303: Water and Effluents 2018	303-2	Management of water discharge-related impacts	2.4.2 Wastewater Management	62
		303-3	Water Withdrawal	2.4.1 Water Consumption Management 2.4.3 Water Resource Risk Management	62 64
		303-4	Water Discharge	2.4.2 Wastewater Management 2.4.3 Water Resource Risk Management	62 64
		303-5	Water Consumption	2.4.2 Wastewater Management 2.4.3 Water Resource Risk Management	62 64
Air Pollutant Emission Management*	GRI 3: Material Topics 2021	3-3	Management of material topics	2.5 Air Pollutant Emission Management	65
	GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	2.3.1 GHG Emission Management	55
		305-2	Indirect (Scope 2) GHG emissions		
		305-3	Other Energy indirect (Scope 3) GHG emissions		
		305-4	GHG Emission Intensity		
		305-5	Reduction of GHG emissions		
		305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	2.5 Air Pollutant Emission Management	65
Waste	GRI 306: Waste 2020	306-3	Waste generation	2.6 Waste Management	67
		306-4	Waste diverted from disposal		
		306-5	Waste directed to disposal		
Supplier Environmental Assessment	GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	1.3.2 Supplier management system	43

GRI 400: Social

Topic	GRI Standards	Topic-specific disclosures		Chapter	Page
Employment	GRI 401: Employment 2016	401-1	New employee hires and employee turnover	3.1.2 Composition of Talent	77
		401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	3.3.1 Employee Benefits	86
		401-3	Parental leave		
Occupational safety and health*	GRI 3: Material Topics 2021	3-3	Management of material topics	3.4.2 Workplace and Process Safety	98
	GRI 403: Occupational Health and Safety 2018	403-1	Occupational health and safety management system	3.4.2 Workplace and Process Safety	98
		403-2	Hazard identification, risk assessment, and incident investigation		
		403-3	Occupational health services	3.3.2 Health Care	91
		403-4	Worker participation, consultation, and communication on occupational health and safety	3.4.2 Workplace and Process Safety	98
		403-5	Worker training on occupational health and safety	3.4.3 Response and management of major incidents	107
		403-6	Promotion of worker health	3.3.2 Health Care	91
		403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	1.3.2 Supplier management system 3.4.2 Workplace and Process Safety	43 98
		403-8	Workers covered by an occupational health and safety management system	3.4.2 Workplace and Process Safety	98
		403-9	Work-related injuries		
		403-10	Work-related ill health		
Training and Education	GRI 404: Training and Education 2016	404-1	Average hours of training per year per employee	3.2 Talent Cultivation and Development	81
		404-2	Programs for upgrading employee skills and transition assistance programs		
		404-3	Percentage of employees receiving regular performance and career development reviews		

Topic	GRI Standards	Topic-specific disclosures		Chapter	Page
Diversity and Equal Opportunity	GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	3.1.2 Composition of Talent	77
Non-discrimination	GRI 406: Non-discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	3.1.1 Human Rights Policy	73
Child Labor	GRI 408: Child Labor 2016	408-1	Operations and suppliers at significant risk for incidents of child labor	3.1.1 Human Rights Policy	73
Forced or Compulsory Labor	GRI 409: Forced or Compulsory Labor 2016	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	3.1.1 Human Rights Policy	73
Supplier Social Assessment	GRI 414: Supplier Social Assessment 2016	414-2	Negative social impacts in the supply chain and actions taken	1.3.2 Supplier management system	43
Chemical Safety*	GRI 3: Material Topics 2021	3-3	Management of material topics	3.4.1 Chemical Safety	95
	GRI 416: Customer Health and Safety 2016	416-1	Assessment of the health and safety impacts of product and service categories		
	GRI 417: Marketing and Labeling 2016	417-1	Requirements for product and service information and labeling		
Customer Privacy	GRI 418: Customer Privacy 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	1.2.3 Customer Service	36

DCC's Specific Topics

Topic	GRI Topic	Topic-specific disclosures		Chapter	Page
Corporate governance and integrity*	GRI 3: Material Topics 2021	3-3	Management of material topics	4.1.1 Corporate Governance	119
Response and management of major incidents*	GRI 3: Material Topics 2021	3-3	Management of material topics	3.4.3 Response and management of major incidents	107
Sustainable development strategy*	GRI 3: Material Topics 2021	3-3	Management of material topics	Introduction Sustainability Strategy	13

Appendix 2: SASB Corresponding Table

TOPIC	CODE	ACCOUNTING METRIC	Corresponding Chapters	Page
GHG Emissions	RT-CH-110a.1	Scope 1 GHG emissions (tCO2e); Scope 1 percentage covered under GHG emissions-limiting regulations	2.3 GHG and Energy Management	55
	RT-CH-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 GHG emissions, emissions reduction targets, and an analysis of performance	2.3 GHG and Energy Management	55
Air Quality	RT-CH-120a.1	Air emissions of the following pollutants: (1) NOX (excluding N2O), (2) SOX, (3) volatile organic compounds (VOCs), and (4) hazardous air pollutants (HAPs)	2.5 Air Pollutant Emission Management	65
Energy management	RT-CH-130a.1	(1) Total energy consumed (GJ), (2) percentage grid electricity (%), (3) percentage renewable (%), (4) total self-generated energy (GJ)	2.3 GHG and Energy Management	55
Water resources management	RT-CH-140a.1	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	2.4 Water resources management	62
	RT-CH-140a.2	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	2.4 Water resources management	62
	RT-CH-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	2.2 Climate-related Risks and Opportunities 2.4 Water resources management	51 62
Hazardous Waste Management	RT-CH-150a.1	Amount of hazardous business waste generated, percentage recycled	2.6 Waste Management	67
Community Relations	RT-CH-210a.1	Discussion of engagement processes to manage risks and opportunities associated with community interests	3.5 Community Relations	112
Workforce Health & Safety	RT-CH-320a.1	For direct employees and contract employees: (1) Total recordable incident rate (TRIR) (2) fatality rate	3.4 Occupational Health and Safety	95
	RT-CH-320a.2	Description of efforts to assess, monitor, and reduce exposure of direct employees and contract employees to long-term (chronic) health risks	3.3 Employee Care 3.4 Occupational Health and Safety	86 95
Product Design for Use-phase Efficiency	RT-CH-410a.1	Revenue from products designed for use-phase resource efficiency	1.2 Green products and Service Quality	26

TOPIC	CODE	ACCOUNTING METRIC	Corresponding Chapters	Page
Safety & Environmental Stewardship of Chemicals	RT-CH-410b.1	(1) Percentage of products that contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances, (2) percentage of such products that have undergone a hazard assessment	Currently, DCC has no relevant statistics. For management of GHS chemicals, please refer to 1.2 Green Products and Service Quality	-
	RT-CH-410b.2	develop alternatives with reduced human and/or environmental impact.	1.2 Green products and Service Quality	26
Genetically Modified Organisms	RT-CH-410c.1	Percentage of products by revenue that contain genetically modified organisms (GMOs)	DCC does not use genetically modified organisms	-
Management of the Legal & Regulatory Environment	RT-CH-530a.1	The organization identifies environmental/social laws, regulations or policies for risks and opportunities that may pose material financial impact.	2.2 Climate-relate Risks and Opportunities 4.1.2 Risk management	51 121
Operational Safety, Emergency Preparedness & Response	RT-CH-540a.1	Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR)	3.4 Occupational Health and Safety	95
	RT-CH-540a.2	Number of transport incidents	1.3 Sustainable Supply Chain Management	39

Taiwan Stock Exchange Corporation Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies - Sustainability Disclosure Indicator - Chemical Industry

Except for the “Product volume by product type” indicator, please refer to the Appendix Assurance Report of CPAs’ Independence for the remaining indicators.

Indicator	Indicator Type	Annual Disclosure Status	Unit
Product volume by product type	Quantitative	For production and sales values in the most recent two years, please see the Company’s 2022 Annual Report	Not applicable

Assurance Report of CPAs' Independence

English Translation of a Report Originally Issued in Chinese

Assurance Report of Independent Auditors

To Dairen Chemical Corporation

1. Scope

We have been engaged by Dairen Chemical Corporation to perform a limited assurance engagement in relation to and report on selected sustainability performance indicators included in Dairen Chemical Corporation's 2022 Sustainability Report.

Regarding the sustainability performance indicators selected by Dairen Chemical Corporation and their applicable criteria, please refer to appendix A.

Management responsibility

Dairen Chemical Corporation is responsible for the preparation of 2022 Sustainability Report in accordance with adequate criteria, including referencing to Global Reporting Initiatives ("GRI") GRI Standards, and for the design, execution and maintenance of internal controls in regard with report preparation to support the collection and presentation of the Report.

Independent Auditor's Responsibility

Our responsibility is to plan and perform limited assurance engagement in accordance with the TWSAE3000 "Assurance Engagements other than Audits or Reviews of Historical Financial Information", issued by Taiwan Accounting Research and Development Foundation.

2. Assurance

The procedures performed in limited assurance engagement vary in nature and timing, and are less in extent than for a reasonable assurance engagement so that the level of assurance is substantially lower than reasonable assurance engagement. While we considered the effectiveness of Dairen Chemical Corporation's internal controls when determining the nature and extent of procedures, our review was not designed to provide assurance on internal controls.

To conclude for limited assurance, our procedures performed included:

- Interviewing with Dairen Chemical Corporation's management and personnel to understand the Dairen Chemical Corporation's implementation of overall sustainability and reporting process;
- Understanding the main stakeholders of Dairen Chemical Corporation and their expectations and needs as well as interaction protocols by interview or examination of documentation and how Dairen Chemical Corporation responded to those expectations and needs;
- Performing analytical procedures on selected sustainability performance indicators, gathering and checking other supporting documentation and management information obtained, testing on sample basis if necessary;
- Reading Dairen Chemical Corporation's Sustainability Report to ensure the implementation of overall sustainability and reporting process is consistent with our understanding.

3. Limitations

Non-financial information contained within sustainability reports are subject to measurement uncertainties. The selection of different measurement techniques can result in materially different measurement. Also assurance engagements are based on selective testing of information being examined, and it is not possible to detect all of the existing material misstatements whether resulting from fraud or error.

4. Quality and Independence

We are in conformity with TWSQC1 "Quality Control for Public Accounting Firms" to establish and maintain a sound system of quality control, including code of professional ethics, professional standards and those written policies and procedures in applicable regulations. We are also in conformity with related independence and other ethics requirements in Taiwan's Norm of Professional Ethics, which basic principles are integrity, objectivity, professional competence and due care and professional behavior.

5. Conclusion

Based on our procedures and obtained evidence, nothing has come to our attention that causes us to believe that any material modifications or adjustments should be made to the selected sustainability indicators in accordance with applicable criteria.

Lin, Li Huang
Ernst & Young
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Taipei, Taiwan, Republic of China

Notice to Readers
The reader is advised that the sustainability report has been prepared originally in Chinese. In the event of a conflict between the assurance report and the original Chinese version or difference in interpretation between the two versions, the Chinese language assurance report shall prevail.

Appendix A

<table>
<tr><th>No.</th><th>Section Title</th><th>Article Title</th><th>Remarks</th><th>Applicable Benchmarking</th></tr>
<tr><td>1</td><td>CH 2
Low Carbon Sustainability</td><td>2.3.2
Energy Conservation and Carbon Reduction Actions</td><td>2022 Energy Consumption Statistics
Unit: Gigajoule (GJ)
<table>
<tr><td colspan="2">Source of Energy</td><td></td></tr>
<tr><td rowspan="8">Fossil fuels</td><td>Diesel</td><td>32,916</td></tr>
<tr><td>Natural gas</td><td>1,852,894</td></tr>
<tr><td>Heavy oil/fuel oil</td><td>252,601</td></tr>
<tr><td>Coal</td><td>0</td></tr>
<tr><td>Externally purchased power</td><td>3,217,220</td></tr>
<tr><td>Externally purchased steam</td><td>14,026,716</td></tr>
<tr><td>Power sold to external parties</td><td>-</td></tr>
<tr><td>Steam sold to external parties</td><td>78,610</td></tr>
<tr><td>Renewable energy</td><td>Renewable energy consumption (including wind energy, solar energy, biomass, etc.)</td><td>2,326</td></tr>
<tr><td colspan="2">Total Energy Consumption</td><td>19,306,063</td></tr>
<tr><td rowspan="2">Self-generated energy</td><td>Self-generated steam</td><td>735,825</td></tr>
<tr><td>Self-generated power</td><td>-</td></tr>
<tr><td colspan="2">Renewable energy share</td><td>0.01%</td></tr>
<tr><td colspan="2">Grid power usage percentage</td><td>16.66%</td></tr>
</table></td><td>Total energy consumed, percentage gridelectricity, percentage renewable, total self-generated and self-used energy.</td></tr>
<tr><td>2</td><td>CH 2
Low Carbon Sustainability</td><td>2.4.1
Water Consumption Management</td><td>2022 Water Resources Statistics
Unit: megaliters (thousand cubic meters)
<table>
<tr><td>Item</td><td></td></tr>
<tr><td>(+)Tap water</td><td>4,661</td></tr>
<tr><td>(+)Reservoir water</td><td>-</td></tr>
<tr><td>(+)River water</td><td>1,125</td></tr>
<tr><td>(+)Groundwater</td><td>-</td></tr>
<tr><td>(+)Rainwater</td><td>172</td></tr>
<tr><td>(+)Externally Purchased Pure Water</td><td>816</td></tr>
<tr><td>Total Water Withdrawal (A)</td><td>6,774</td></tr>
</table>
2022 Water Discharge and Water Consumption Statistics
Unit: megaliters (thousand cubic meters)
<table>
<tr><td>Item</td><td></td></tr>
<tr><td>(+)Surface Water</td><td>8</td></tr>
<tr><td>(+)Seawater</td><td>-</td></tr>
<tr><td>(+)Third-party Water</td><td>2,179</td></tr>
<tr><td>Total water discharge</td><td>2,187</td></tr>
<tr><td>Total water consumption</td><td>4,587</td></tr>
</table></td><td>Total amount of water withdrawn, total water consumed, and volume of effluent required to be disclosed under the law or to be disclosed voluntarily.</td></tr>
</table>

<table>
<tr><th>No.</th><th>Section Title</th><th>Article Title</th><th>Remarks</th><th>Applicable Benchmarking</th></tr>
<tr><td>3</td><td>CH 2
Low Carbon Sustainability</td><td>2.6
Waste Management</td><td>2022 Waste Statistics
Unit: Tons
<table>
<tr><td>Item</td><td></td></tr>
<tr><td>Hazardous Business Waste Output</td><td>19,533</td></tr>
<tr><td>Hazardous Business Waste Recovery Rate (%)</td><td>55.27%</td></tr>
</table></td><td>Total quantity and percentage recycled hazardous wastes generated during the production process of products required to be disclosed under the law or to be disclosed voluntarily.</td></tr>
<tr><td>4</td><td>CH3
Common Good</td><td>3.4.2
Workplace and Process Safety</td><td>2022 Indicators for Work-related Injuries
<table>
<tr><td colspan="4">DCC</td></tr>
<tr><td>Gender</td><td>Male</td><td>Female</td><td>Total</td></tr>
<tr><td>No. of fatalities as a result of work-related injury</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>No. of high-consequence work-related injuries</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>No. of recordable work-related injuries</td><td>9</td><td>0</td><td>9</td></tr>
<tr><td>Rate of fatalities as a result of work-related injury</td><td>0.00</td><td>0.00</td><td>0.00</td></tr>
<tr><td>Rate of high-consequence work-related injuries</td><td>0.00</td><td>0.00</td><td>0.00</td></tr>
<tr><td>Rate of recordable work-related injuries</td><td>0.59</td><td>0.00</td><td>0.51</td></tr>
<tr><td>Total number of hours worked</td><td>3,072,491</td><td>444,588</td><td>3,517,079</td></tr>
</table></td><td>The number and rate of work-related injuries.</td></tr>
<tr><td>5</td><td>CH3
Common Good</td><td>3.5
Community Relations</td><td>For the sensitive points during the construction period outside the factory, fences or dikes were set up at the perimeter of the site. Sources of fugitive dust such as construction materials, gravel, earth, or waste that were piled inside the base were covered with dustproof cloths or nets to suppress dust. When excavation works were being performed, steel plates were laid down on the main access road for vehicles or on the base ground where there were no construction works. By doing this, we were able to control dust from the movement of vehicles.
In the case of any abnormality, relevant units must be informed and a contingency plan taken immediately. During the operation of the factory, air pollution prevention equipment must be installed according to the contents of the Environmental Impact Assessment. As well as this, the original supplier must be engaged to maintain and repair the equipment on a regular basis. Newly added processes must be handled in accordance with the “Standards for Air Pollutant Emission from Stationary Pollution Sources”</td><td>Operations with significant actual and potential negative impacts on local communities.</td></tr>
</table>

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<tr><th>No.</th><th>Section Title</th><th>Article Title</th><th>Remarks</th><th>Applicable Benchmarking</th></tr>
<tr><td>6</td><td>CH1 Responsible Production</td><td>1.3.2 Supplier management system</td><td>ESG Risk Assessment of Major Raw Material Suppliers<table>
<tr><td>Evaluated Supplier</td><td>· Ranked according to the raw material purchases from October of the previous year to September this year, the amount of raw materials purchased in the stated period (calculated separately by each company). The main raw materials suppliers whose total supplies account for more than 70% of total raw material purchases, excluding internal purchases from CCPG's affiliates. If it is confirmed that no purchases will be made from such supplier in the assessment year, the supplier will not be listed for assessment.
· Additional Conditions: If the number of suppliers is less than three after excluding internal purchases from CCPG's affiliates, the assessment scope will be extended to suppliers whose raw material purchases account for more than 3% of the total amount.</td></tr>
<tr><td>Assessment Content</td><td>· Stage I: Understand the public ESG or CSR disclosure status of major raw material suppliers. List those who take the initiative to disclose ESG or CSR information and statement as suppliers with low risks.
· Stage II: A ESG risk questionnaire will be distributed to suppliers with lower degree of ESG or CSR information disclosure from Stage I to investigate their implementation results in terms of quality/safety/environmental protection/human rights/ social aspects with supporting information submitted. The ESG risk level of the supplier will be determined according to the questionnaire results.</td></tr>
<tr><td>Survey Frequency</td><td>Once every year</td></tr>
<tr><td>Assessment Handling</td><td>After two stages of assessment, medium and high risk suppliers are scheduled to be included in the on-site audits within one year. Through on-site visits and exchanges, advice will be given from all aspects and improvements required within a deadline to track the effectiveness.</td></tr>
</table></td><td>Specific and effective mechanisms and actions taken by the enterprise itself and its suppliers to reduce negative impacts on the environment or society.</td></tr>
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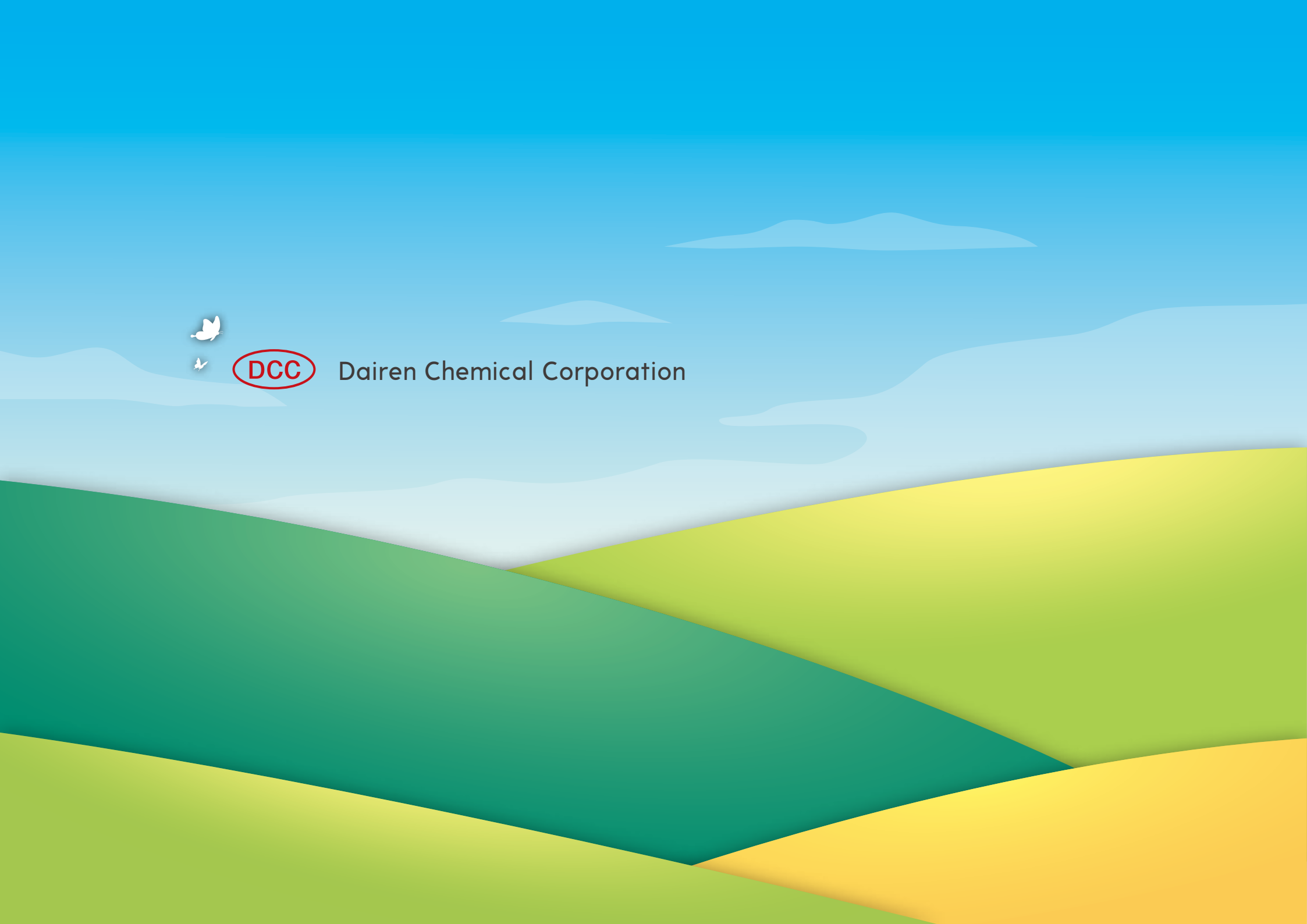
<tr><td>6</td><td>CH1 Responsible Production</td><td>1.3.2 Supplier management system</td><td>2022 Statistics of ESG Policy Risk Survey of Major Raw Material Suppliers<table>
<tr><td>Area</td><td rowspan="2">Taiwan</td><td colspan="4">Overseas Factories</td></tr>
<tr><td>Company/Factory</td><td>DCCJS</td><td>CCDPJ</td><td>CCDSG</td><td>DCCM</td></tr>
<tr><td>Total Number of Suppliers</td><td>9</td><td>6</td><td>3</td><td>5</td><td>4</td></tr>
<tr><td>No. of Suppliers Assessed (Affiliates excluded)</td><td>5</td><td>4</td><td>1</td><td>5</td><td>4</td></tr>
<tr><td>Number of Suppliers Who Have Released ESG/CSR Reports/Disclosures</td><td>4</td><td>2</td><td>0</td><td>5</td><td>4</td></tr>
<tr><td>Number of Questionnaires Distributed</td><td>1</td><td>2</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td rowspan="3">Consolidated Public Survey and Questionnaire results (Total number of suppliers)</td><td>High-risk 0</td><td>1</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Medium-risk 0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Low-risk 9</td><td>5</td><td>2</td><td>5</td><td>4</td></tr>
</table></td><td>Specific and effective mechanisms and actions taken by the enterprise itself and its suppliers to reduce negative impacts on the environment or society.</td></tr>
<tr><td>7</td><td>CH3 Common Good</td><td>3.1.1 Human Rights Policy</td><td>2022 Education and Training on Legal Compliance and Human Rights - Employee Training Completion Percentage<table>
<tr><td>Management Role</td><td>100%</td></tr>
<tr><td>Non-management Role</td><td>100%</td></tr>
</table></td><td>Self-selected indicator.</td></tr>
</table>


DCC
Dairen Chemical Corporation