

Profit
People
Planet

TCI

Join & Delight consumer's life.

Sustainability Report

vol. 2022

About This Report

Commencing in 2018, TCI Co., Ltd. (hereinafter referred to as TCI) has been issuing an annual Sustainability Report. The most recent report was unveiled in September 2022.

In addition to the disclosure of specific financial information, this report includes the managerial directives, investments, and performance pertaining to non-financial matters associated with corporate governance, environmental preservation, and social responsibility from the preceding year. The "ESG" section of the company's website serves to address the concerns and expectations of global stakeholders concerning the matter of sustainable development. Its objective is to foster enduring partnerships with stakeholders, fostering social inclusion and facilitating sustainable growth.



Website | ESG

Contact

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Words from Management

The future is now!

Established in 1980, TCI has been a trailblazer in crafting numerous best-selling products, distributed across 64 countries globally. Our unwavering commitment lies in the integration of bioscience design as the fundamental driver of our product development. Rooted in consumer demands, our integrated bioscience design draws upon cross-disciplinary expertise from fields such as chemistry, biology, mathematics, industrial engineering, genetic medicine, aesthetics, ergonomics, applied materials science, and consumer behavior research.

Guided by a keen understanding of market demands, including anti-aging, metabolism increase, postpartum recovery, and male health care, TCI leverages cutting-edge scientific research and technology to create high-performance products that enhance the lives of consumers. Operating from advanced production facilities in Taiwan, Shanghai, and Utah, USA, TCI has established state-of-the-art intelligent factories, ensuring stable and responsible supply chains. Our commitment to the highest global quality standards and optimized digital management reflects our dedication to excellence. In 2022, TCI underwent a series of impactful transformations, laying the foundation for a promising future in 2023. Looking ahead, TCI is poised to make significant strides in the following areas:

- 1.Accelerating Globalization and Business Growth: TCI is committed to expanding its global footprint and fostering the growth of its international business.
- 2.Innovation, Join & Delight: TCI will continue to prioritize innovation, aiming to join and delight consumers through groundbreaking products and experiences.
- 3.Intelligent Manufacturing and Factory Investments: TCI Group is focused on advancing intelligent manufacturing processes and making strategic investments in its factories.
- 4.Talent Recruitment & Cultivation: TCI recognizes the importance of nurturing talent and is dedicated to attracting and developing skilled professionals.
- 5.Renewable Energy and Net Zero Pathway: TCI is actively pursuing a sustainable future by incorporating renewable energy practices and working towards a net-zero carbon footprint.
- 6.Strengthening Cost and Risk Management: TCI places a strong emphasis on robust cost and risk management practices to ensure operational efficiency and resilience.

As TCI forges ahead, our corporate vision remains centered on "joining & delighting consumer's life." We are committed to ongoing communication with all stakeholders, with a focus on creating value as the foundation of our operations. Grounded in scientific research and development, and guided by a long-term strategy of global development, TCI is evolving into an Integrated Bioscience Design Trading Company with a biotechnology-focused diversification strategy. This approach aligns with our commitment to corporate ESG sustainability, fostering innovation, progress, and a legacy-making journey.

Chairman

Vincent Chan



TCI Group Overview

- About TCI
- Main Products and Value Chain
- Organizational Overview
- TCI's S Factory
- Integrated Bioscience Design
- Intellectual Property Deployment



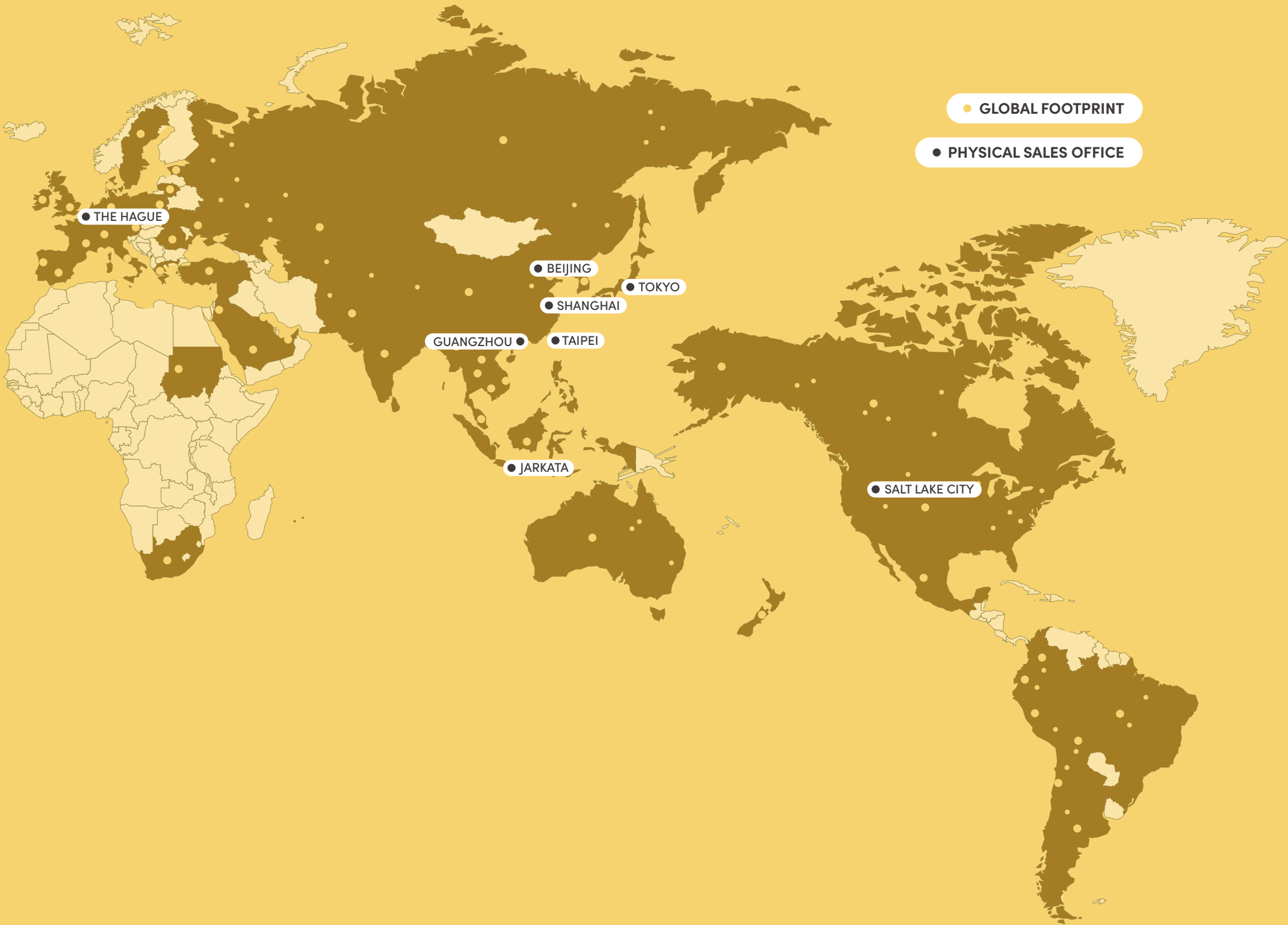
About TCI

Established in 1980, TCI underwent public listing in 2011 and, in 2013, secured a listing on the stock exchange, establishing its headquarters in the Neihu Science Park in Taipei, Taiwan. Operating on a global scale, TCI's presence spans Asia, Europe, and North America. The TCI group encompasses entities such as TCI, MBI, TCI Gene, TCI Living, SMY-IOP, and PetFood Biotechnology. Throughout the decades, TCI has remained dedicated to the principles of integrity, innovation, and intelligence, steadfast in its commitment to delivering contract development and manufacturing services to its clients. Leveraging its distinctive product design and robust research and development capabilities, TCI tailors formulations and manufactures unique products for the market.

In 2021, TCI formally introduced the concept of the "Integrated Bioscience Design Company," marking the onset of a year characterized by mergers and acquisitions. The company swiftly expanded its global operations, producing billions of health supplements, tens of millions of functional beverages, and millions of facial masks and serums annually. By the close of 2022, TCI had established a presence in 64 countries, achieving consolidated revenue of 7.43 billion New Taiwan Dollars. TCI's overarching goal is to expedite the development of more efficient products through the "Integrated Bioscience Design (IBD)" and "Bio Resource Data Mining" models, with the aspiration of positively influencing the lives of over a billion people through the impact of high-quality products.

In alignment with the United Nations Sustainable Development Goals, TCI actively formulates innovative action plans across economic, environmental, and social dimensions, creating sustainable value and exploring shared prosperity potential for the industry, environment, and society.

* Prior to the publication of this report, sales expanded to 64 countries.



Main Products and Value Chain

Within the TCI Group, TCI boasts 43 years of specialized expertise in Contract Development and Manufacturing Organization (CDMO) services, distinguishing itself as the entity within the group that has committed the most resources to and garnered the most research and development achievements. TCI caters to a global clientele, with products currently reaching consumers in 64 countries. The company consistently dedicates a minimum of 5% of its annual revenue to cutting-edge research and development initiatives. Over the years, TCI has not only amassed a substantial database through the exploration of natural functional ingredients but has also harnessed the potential to elevate various industries, spanning health supplements, skincare products, pharmaceuticals, genetic platforms, bio-materials, medical device, and more.

Moreover, through the establishment of state-of-the-art smart factories, maintaining a resilient and responsible supply chain, and striving for the highest global quality standards, TCI ensures the provision of a seamless, end-to-end service with no time lag, covering everything from contract manufacturing and production to sales. This comprehensive approach solidifies TCI as the most dependable international partner for its customers.



S Factory

TCI's S-grade factory encapsulates the principles of Safety, Standards, and Speed. The Precise iManufacturing Center (Rock Park) has successfully met rigorous global standards, obtaining certifications such as GMP, GMPC, FSSC22000, SQF (Safe Quality Food), HACCP, ISO 9001, ISO22000, ISO 22716, ISO 14001 Environmental Management Systems, ISO 50001 Energy Control Management, ISO 45001 Occupational Safety and Health Management Systems, ISO 14644, ISO 46001, ISO 14046 Water Management Systems, and SMETA (Sedex Members Ethical Trade Audits) from Sedex (Supplier Ethical Data Exchange), BRC Retailers Association. Additionally, it holds rare certifications from the U.S. NSF (National Sanitation Foundation) and TGA (Therapeutic Goods Administration) for Australia, along with an annual EcoVadis CSR assessment.

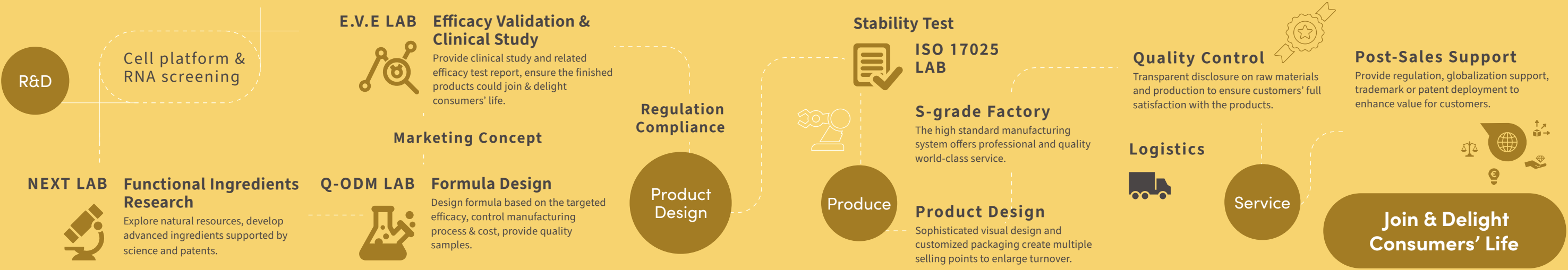
Furthermore, TCI extends support to its customers in various regulatory processes, including FDA registration, China food marketing authorization, Indonesia BPOM application registration, and HALAL certification applications, covering MUI, JAKIM, THIDA, and other HALAL types. This comprehensive assistance enables customers to concentrate on marketing activities without concern for the rapid expansion of the market and the regulatory and qualification requirements of each regional market.

3S
SAFETY
STANDARD
SPEED

International Audit

Category	Audit	English	Country/Region	Rock Park (S5.S9.S12)	Rock Park (S11)	Golden mountain Park (S8)
GFSI	BRC	Food Safety Standards	International (EU & US)	V		V
	BRC	Food Safety Standards(Packaging Materials)	International (EU & US)	V	V	
	FSSC22000	Food Safety Management System	International	V		V
	IFS	International Food Safety Standards	International (DEU/FRA)	V		V
	SQF	Food Safety Standards	International	V		In process
	SQF	Food Safety Standards(Packaging Materials)	International	V	V	
	Global GAP	Good Agricultural Practices	International	V		V
	ISO 9001	Quality Management System	International	V		
ISO	ISO22000	Food Safety Management System	International	V	V	V
	ISO14001	Environmental Management System	International	V		V
	ISO45001	Occupational Health and Safety System	International	V	V	V
	ISO50001	Energy Management System	International	V	V	V
	ISO22716	Cosmetic Safety Management System	International	V		V
	ISO14064-1	GHG	International		V	
	ISO14644	Clean Room Standards	International	V	V	V
	ISO46001	Water Management System	International	In process	In process	
	ISO14046		nternational	In process	In process	
	ISO13485	Medical Facility Management System	International	In process		
OTHERS	TGA	GMP	International (AUS)	V		In process
	PAS2060	Carbon Neutrality	International	V	V	
	NSF	GMP	International (US)	V		V
	HACCP	HACCP	International	V		V
	TQF	GMP	TAIWAN	V		
	TFDA-GMP	TFDA-GMP	TAIWAN	V	V	
	GMPC	GMP	International		V	
	SMETA	Social Responsibility	International	V	V	V
	SA8000	Social Responsibility	International			V

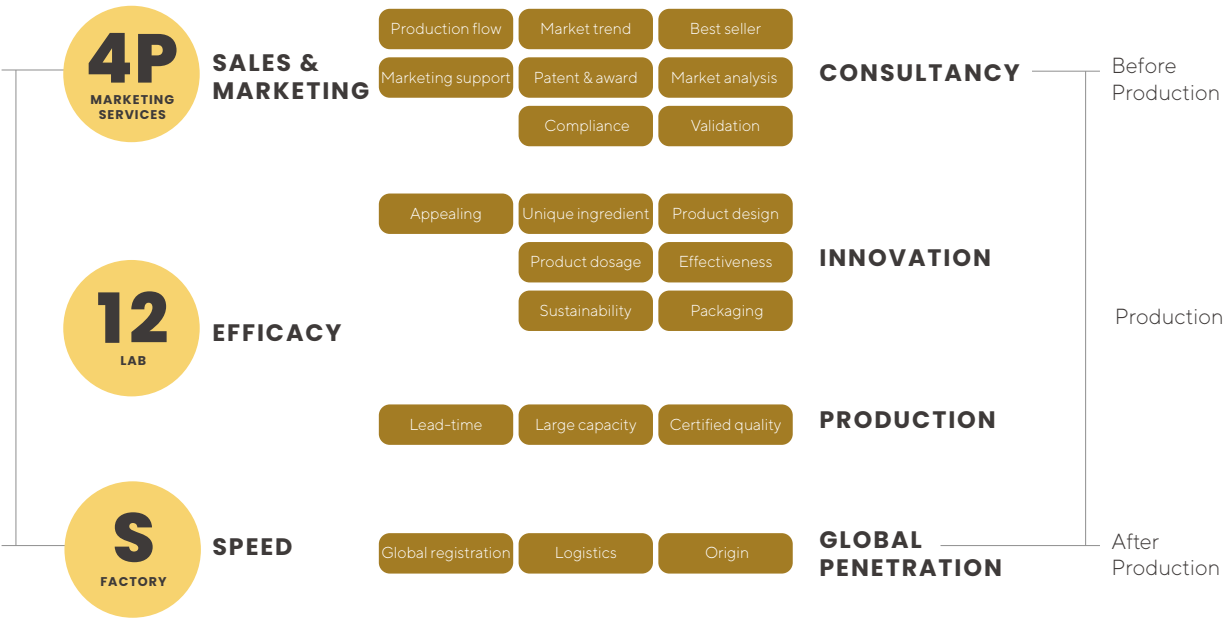
Integrated Bioscience Design



TCI's corporate mission is intricately shaped by consumer demands and an unwavering commitment to customer loyalty. Guided by its exclusive "Integrated Bioscience Design (IBD)" approach, TCI endeavors to craft high-performance, market-differentiated best-selling products. Presently, the company has successfully developed a diverse product range, spanning health supplements, skincare products, medical equipment, and pharmaceuticals, distributed in 64 countries worldwide. TCI's steadfast dedication extends to meeting the varied consumer needs across different regions, encompassing functionality, taste, user experience, and environmental sustainability.

Remaining true to its core values, TCI upholds the "CDMO (Contract Development and Manufacturing Organization)" business model, maintaining exceptional teams globally in key locations such as Taiwan, China, the United States, Europe, Southeast Asia, and Oceania. Additionally, TCI actively engages in collaborative efforts with its corporate customer partners, fostering the exchange of resources and the accumulation of expertise in vital areas such as research and development, manufacturing, patent intellectual property, quality certifications, and various intangible assets. This collaborative synergy plays a pivotal role in helping both TCI and its customers establish enduring, mutually beneficial partnerships.

END-TO-END PRODUCT
DEVELOPMENT & MANUFACTURING SERVICE



END-TO-END PRODUCT
DEVELOPMENT & MANUFACTURING FLOW

Product-centric One-stop Service

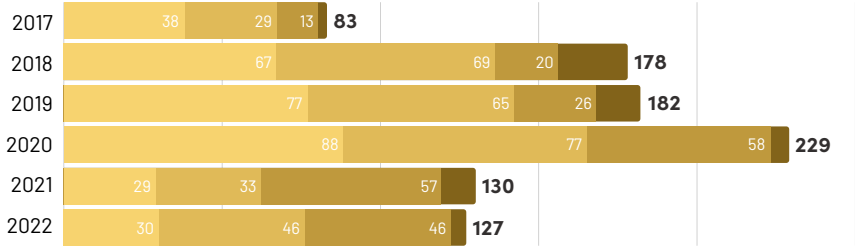
In the preliminary development phase, TCI's Research and Development Center engages in efficacy and market comparisons with customers, analyzes market trends, and studies regional regulations. Additionally, TCI conducts experimental design validation, collaborating with customers to discuss effect mechanisms. Concurrently, the company explores optimal raw material selection and overall product design, leveraging the global supply chain. Following numerous new product development workshops, the company initiates trial production and conducts comprehensive quality and efficacy tests. The evaluation of patent intellectual property protection actively participates in these workshops, ensuring full protection of research and development results. Upon product confirmation, TCI finalizes product documentation, manuals, and marketing resources. Subsequently, customers introduce and promote the product in the market. Through its "Dropshipping service," TCI may provide support to global customers in direct shipping to distributors/agents and even end consumers, maximizing service efficiency and reducing carbon emissions during transportation.

Intellectual Property Deployment

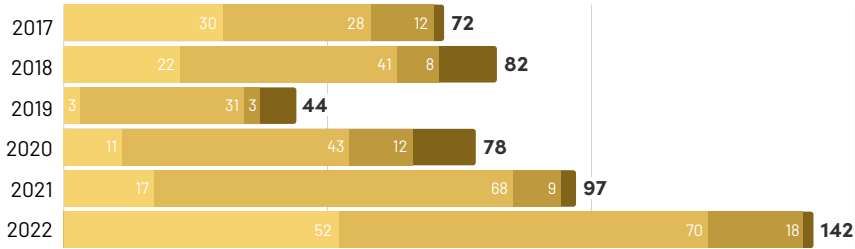
TCI systematically conducts market assessments and intellectual property planning for each IBD material developed, aiming to comprehend the consumer market and anticipate the future product development potential for customers. The company further conducts integrated and comprehensive evaluations encompassing patents, trademarks, copyrights, fair trade, and other aspects to secure maximum intellectual property protection through a global strategic framework. This strategic approach ensures that TCI's developed products can be brought to the market without infringement or commercial encroachment by competitors, thereby elevating the competitiveness of the products.To safeguard research and development achievements, the number of patent and trademark applications is meticulously aligned with the company's research and development resources. As of the end of 2022, TCI has accumulated 929 patent applications, with 515 patents granted. These applications span 17 countries worldwide, including Taiwan, China, Hong Kong, Japan, India, Indonesia, Singapore, Malaysia, Korea, Thailand, Russia, Germany, France, the United Kingdom, the United States, Brazil, and Australia. Additionally, TCI boasts 1,094 trademark applications, 861 approved trademarks, and ongoing trademark applications in 30 countries globally as of the same period.

CN TW EU/US Others

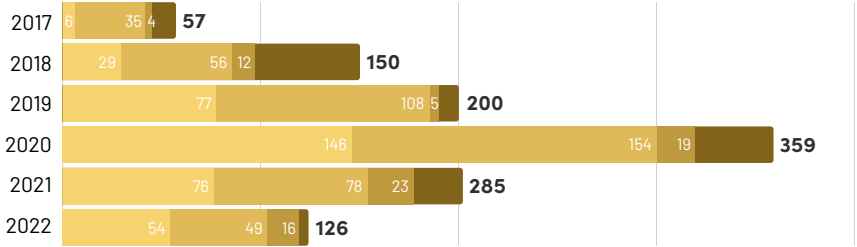
Number of patent applications and regional statistics in the past 6 years



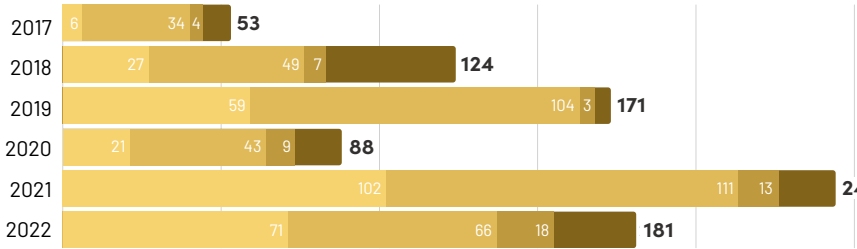
Number of approved patents and regional statistics for the past 6 years



The number of trademark applications and regional statistics in the past 6 years



Number of approved trademarks and regional statistics in the past 6 years



Sustainable Operation and Management

- Sustainability Policy
- Sustainability Key Performance



Sustainability Policy



ESG Policy

With the corporate mission of “join & delight consumer’s life,” TCI adheres to the business principles of Trust, Creation, and Intelligence and works with suppliers and value chains to create value for various stakeholders. TCI focuses on sustainable development, and the entire TCI Group commits to improving corporate governance, promoting environmental sustainability, and practicing social prosperity. The Company adopts the United Nations Sustainable Development Goals (SDGs) as the approach to sustainable operations, echoing eleven goals pertinent to the Company’s operations. In addition, TCI continues to realize substantive actions in various aspects, such as economic, environmental protection, ecological restoration, human rights, education, and integrity in the Company’s operations and the value chain, with the Board of Directors as the highest level of supervision and carrying out concrete actions at all levels.

TCI’s ESG policies includes the following aspects:



- Establishment of regulations on non-use of hazardous substances.
- Procurement policies of conflict minerals.
- Pollution prevention: air quality, waste, wastewater, noise.
- Greenhouse gas management.
- Mitigate food loss.
- Use of resources and circular economy.
- Biodiversity.
- Equality of human rights.
- Prohibition of sexual harassment and various forms of harassment such as verbal, physical, and stalking.

ESG Development Structure

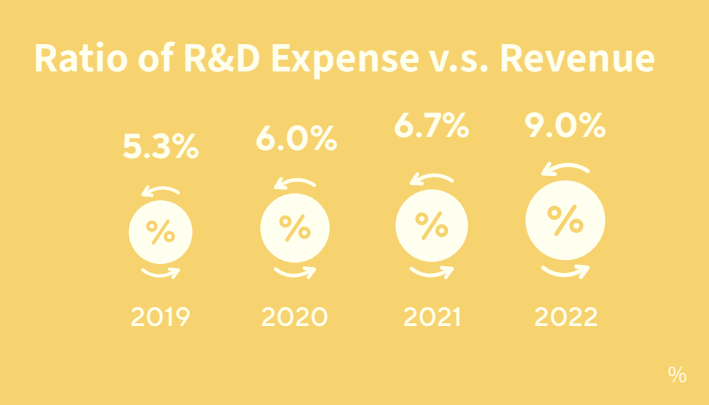
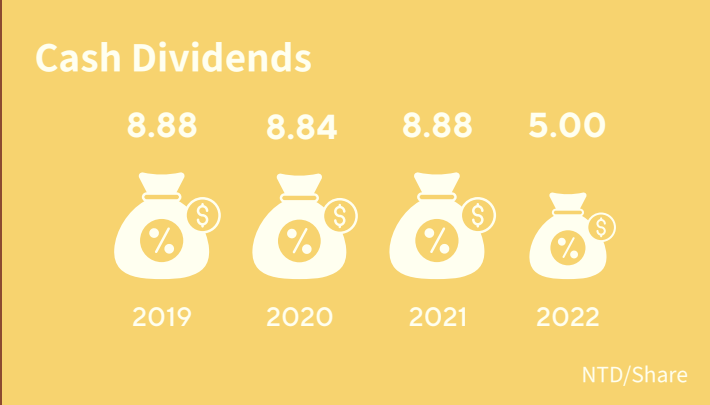
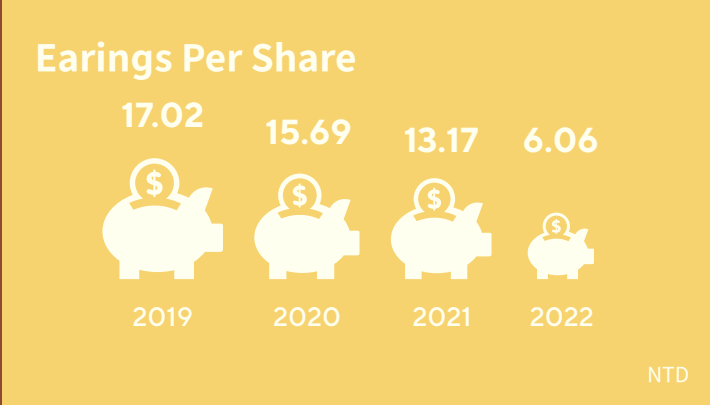
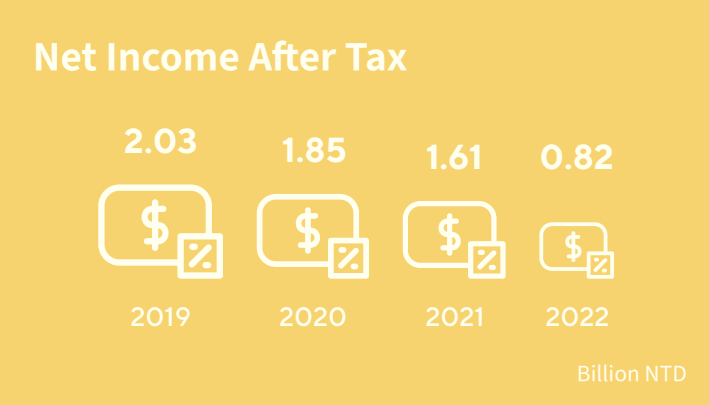
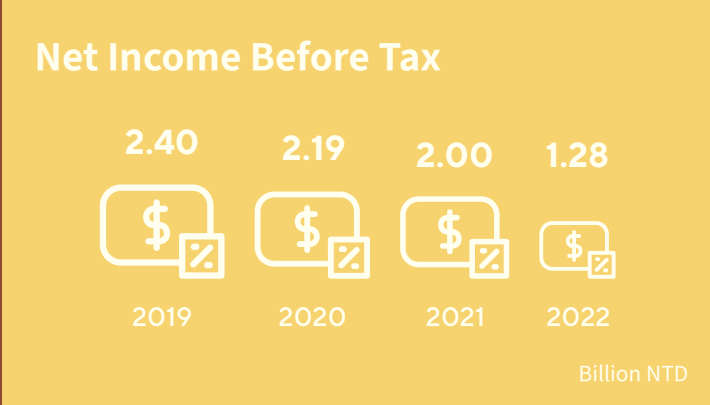
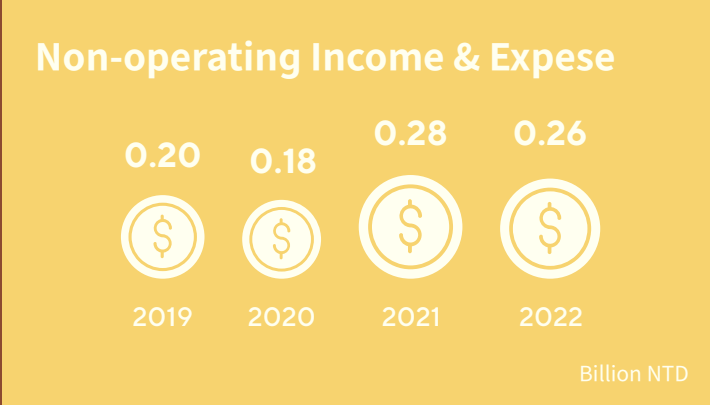
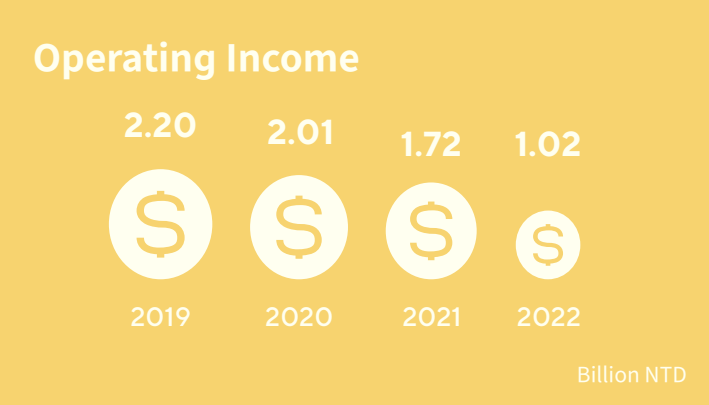
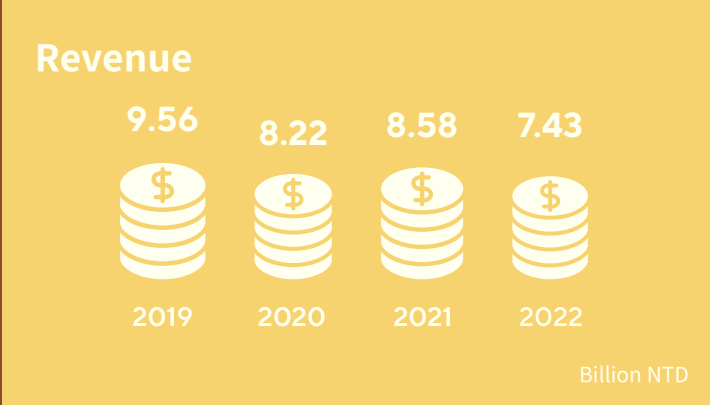
The ESG Committee promotes the sustainability affairs of TCI, and the Chairman leads the ESG Committee as the Chairperson. The Chairman appoints members of the ESG Committee who represent the top executives of each department, consisting of 19 senior executives. The professional capabilities of the Committee members include fields such as finance, legal affairs, business development, information technology, ESG, corporate governance, human resources, etc., and participate and discuss ESG projects and provide cross-departmental resources. With the Board of Directors at the highest level, the Committee realizes corporate social responsibility on four primary levels by implementing corporate governance, promoting a sustainable environment, fostering social care, and strengthening information disclosure. The ESG Committee routinely convenes a meeting every quarter and reports to the Board of Directors at least once a year.

International Sustainability Initiatives

TCI maintains its focus on international sustainability issues and trends. The Company commits to ambitious sustainability goals by publicly responding to international initiatives. TCI continues to invest in the Company's sustainability transition and hopes to make an impact in the industry value chain. The Company has already committed itself to a landmark initiative in energy and climate change and is actively involved in renewable energy development and energy reduction. In 2021, TCI's Science Based Target (SBT) formally passes the audit, becoming a select few Taiwanese companies to have passed the audit.

Initiative	Member Since	Contents	TCI's Commitment
RE100	2018	Affected companies must commit to using 100% renewable energy by 2050	100% use of renewable energy by 2030
EP100	2019	Affected companies must set targets for improving energy productivity or integrate energy management systems	Integration of energy management system by 2026 Using 2016 as the base year, energy productivity will increase by 35% in 2040 <small>*EP100 Energy Productivity Unit: Revenue/kWh</small>
 SCIENCE BASED TARGETS <small>DRIVING AMBITIOUS CORPORATE CLIMATE ACTION</small>	2021	Commit to corporate carbon reduction targets with a rigorous methodology developed by the Science Based Targets initiative(SBTi)	Using 2018 as the base year, decrease the absolute emission reduction of Scope 1 and 2 by 51% and decrease the emission of "purchase of goods and services" of Scope 3 by 15% by 2030.
	2022	Improving the sustainable management of water resources: implementing internal(organizational)and external(watershed)measures to maximize the water resource benefits for society, the environment, and the economy.	The first Taiwanese company has been granted permission to join the Alliance for Water Stewardship(AWS), an international organization for water resource management.

Key Operational Performance



Sustainability Key Performance

Economic



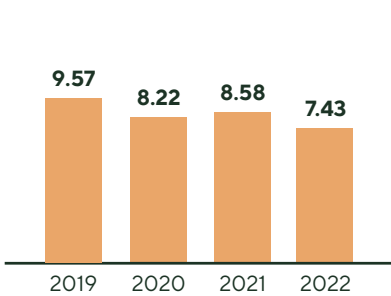
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Number of Directors

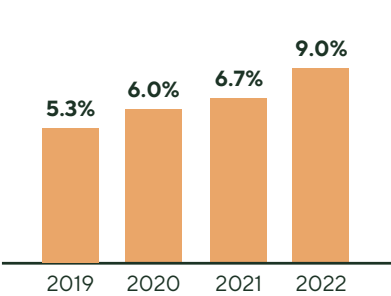


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Number of Independent Directors



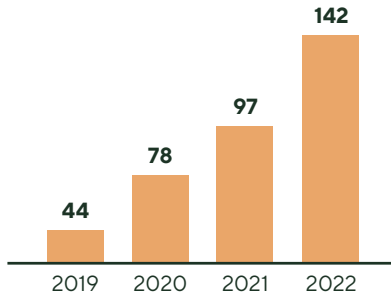
Company Revenue (NT\$ billion)



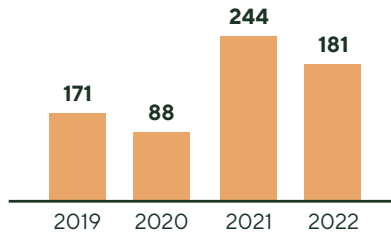
Ratio of R&D expenses to total revenue



Violation of ethics, integrity management incidents (case)



Number of Patents Obtained



Number of Trademarks Obtained

Environmental

Rock Park Golden Hill Park



S&P Global Sustainable 1

Participated in the S&P CSA in 2022 and scored in the top 13% of the world's personal care products industry

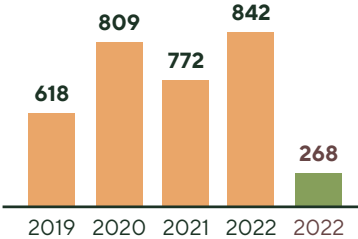
1,362kW 689kW

Rock Park Golden Hill Park

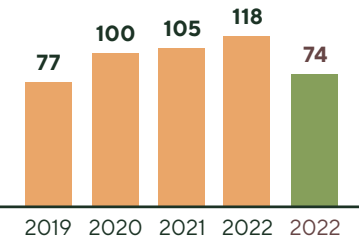
Solar Panel Installation Capacity



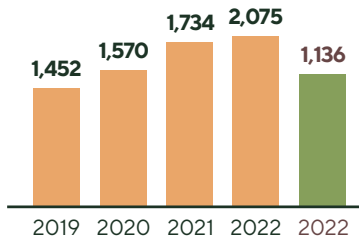
The first Taiwanese company has been granted permission to join the Alliance for Water Stewardship (AWS), an international organization for water resource management.



Energy production rate (GJ/\$Million revenue)



Electricity Intensity (MWh/\$Million revenue)



Water Intensity (tons/\$Million revenue)



Received a B grade in the 2022 CDP Climate Change Questionnaire and GREEN WORLD AWARDS

Social



46.3%

Female management job ratio



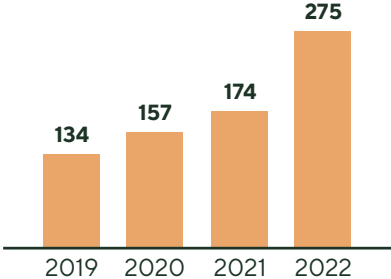
916,000 NTD

The average salary of non-manager full-time employees



53,273

Number of people completes lessons on the TCI App online learning platform



Education training hours per capita (hours)



Awarded Silver and Bronze for EcoVadis



Awarded Golden for Stieve Awards

Innovation and Service

- Innovative Research and Development
- Innovative Incubation
- Low Carbon Design



Innovative Research and Development

MATERIAL ISSUES MANAGEMENT POLICY

TCI’s Commitment

The Company continues to invest in scientific and manufacturing research and development resources to create high-performance, high-value-added dietary supplement, and skincare products and provide global CDMO services. In addition, TCI invests in global patent protection and trademark layout to ensure a high level of protection for our research and design results, connecting them to our business objectives and strengthening our competitive advantage and intellectual property innovation.

Key Actions

- 1. Strengthen intelligent manufacturing and upgrade with Industry 4.0 as the core to enhance research and development efficiency
- 2. Apply for patents and trademarks to protect intellectual property
- 3. Continue to invest in research and development R&D talent recruitment, raw materials, manufacturing processes, formulas, and packaging.



2022 Performances

- 1. 2022 intelligent manufacturing system optimization, manufacturing process improvement in production efficiency, saving cost, and reducing losses, with an estimated benefit of approximately NT\$**36** million.
- 2. TCI's patent commercialization value reached NT\$**2.3** billion in 2022.
- 3. Research and development expenses amounted to NT\$**\$670,095** thousand, accounting for 9.02% of the total revenue.

2023 Target

- 1. Enhance the benefits of intelligent manufacturing system optimization and increase the output per capita by**5%**.
- 2. **12%** increase in patent output value
- 3. Research and development expenses shall not be less than**5%** of revenue



Important Awards and Recognition

Research and Development Awards		
2022 Geneva International Exhibition of Inventions	SlimBT Formula	Gold Award
	MAXI Collagen	
	Golden Clam Peptide	
	Pediococcus acidilactici TCI188	Silver Award
	Lactiplantibacillus plantarum TCI227	Bronze Award
	Biomimetic Peptide	
	Rose Apple Extract	
	Yellow Pitaya Ferment	
2022 The World Genius Convention & Education Expo	White Bayberry Extract	Gold Award
	Black Diamond Apple	
	MAXI HA	
	Bacillus coagulans TCI803	Silver Award
	Lactobacillus paracasei TCI708	
iCAN International Invention Innovation Competition	Pro-Bio Ark (PBA)	Gold, Special, Conference Special Award
	Gentiana scabra Extract	
	Kanzan Cherry Liquid	
	Relax Mint Catnip Extract	
	Kiwi Berry Extract	
	Geisha Ferment	
	ClpB Formula	
2022 International Invention and Trade Expo	Lactobacillus bulgaricus TCI904	Gold, Special, Conference Special Award
	White Pomegranate Extract	

Research and Development Awards		
2022 International Invention and Trade Expo	Saskatoon Berry Extract	Gold, Special, Conference Special Award
	Humanoid Collagen	
2022 World Dairy Innovation Awards	Super X	Best Dairy Drink
2022 Concours Lépine	TCI-Effective Clean Beauty – the outer packaging of the product uses marine-recycled materials and post-consumer recycled materials	Bronze Award
Health Food Society of Taiwan 2022 Health Food Innovation Award	Probio-Kombu Black Tea	Awarded
2022 19th Annual National Innovation Award	double 2 Nutri®	Awarded
ESG Awards		
S&P Corporate Sustainability Assessment	Scored in the 87th percentile of the world’s personal care products industry	
CDP (Carbon Disclosure Project)	B Management Level	
EcoVadis Sustainability Ratings	Pingtung BioCosme PABP Factory: Silver Rating Pingtung PABP Factory: Bronze Rating Shanghai Precise iManufacturing Center (Golden Mountain Park): Bronze Rating	
Dun & Bradstreet 1st ESG Certificate of Assessment Completion	Certified	
Green World Award	Green World Champion for Upcycling Economy Global Gold Winner for Biodiversity Global Silver Winner for Corporate Sustainability	
Asia-Pacific Stevie Award	Gold Winner Award for Excellence in Innovation in Health Care Industries Silver Winner Award for Innovative Achievements in Science or Technology Bronze Winner Award for Innovative Achievements in Diversity & Inclusion People’s Choice Award from the public vote selecting the favorite companies in health care industry	
Taiwan Corporate Sustainability Awards	Top 100 Corporate Sustainability Award, Bronze Award in Sustainability Reporting, Best Performance –Circular Economy Leader Awards	
CSR Excellence in Corporate Social Responsibility Award	Honored in Medium-sized Enterprise Category	
HR Asia Awards	Best Companies to Work for in Asia	
1111 Job Bank Happy Enterprise Award	Gold Award	

Innovative Incubation

12 Main Laboratories



NEXT LAB



SBL LAB



H&M LAB



E.V.E. LAB



GMA LAB



ARMTE LAB



CLEAN B. LAB



Q-ODM LAB



MIA LAB



EAGLE EYE LAB



CELL V. LAB



ART LAB



Q O D M L a b

The Q-ODM Lab implements the formulation provided by the Product Design Department and crafts theoretical designs into reality to ensure and prepare for zero complications in the manufacturing process and to establish the most reliable mass production schedule. We simultaneously adopt product formulation, mass production plans, product stability testing, and production optimization. After creating the initial samples, our experts optimize the manufacturing model with the best production fluency. Through parametric analysis of sensory tests, flavor evaluations, skin reactions to a facial mask, and dermatological studies, we have achieved the highest quality standards (Quality) while being the quickest in awareness for new business opportunities (Quickness), and lastly, providing the economics of rational quotation (Quotation).



Next Lab

The NEXT Lab dedicates itself to exploring bio-mineral sources with healing potential worldwide. Using gentle and sustainable special technology to extract and purify to obtain effective ingredients that can be developed into high-performance products.

E . V . E . L a b

The development of high-performance products is the key to success. By cooperating with major medical centers and universities, the E.V.E Lab developed innovative visualization technology for clinical validation to scientifically validate the effects and provide only the safest and healthiest products.



Eagle Eye Lab

By developing an accurate visual recognition system, Eagle Eyes Lab conducts perceptive and precise safety compliance product testing achieving a 99.9% detection rate, creating a comprehensive quality control of the production process.

Cell Validation Lab

The Cell Validation Lab uses the Cell Validation platform to conduct a series of cellular experiments to validate the efficacy of ingredients and products, providing customers with scientific validation data to create high-performance products.



H & M L a b

The H&M Lab has established a strain database of over 4,981 functional microorganisms. Through probiotics screening and functional development, we can find the beneficial bacterial flora regulation mode for consumers' health and truly improve their lives!

Innovative Incubation

12 Main Laboratories



NEXT LAB



SBL LAB



H&M LAB



E.V.E. LAB



GMA LAB



ARMTE LAB



CLEAN B. LAB



Q-ODM LAB



MIA LAB



EAGLE EYE LAB



CELL V. LAB



ART LAB

Clean Beauty Lab

The Clean Beauty Lab creates high-performance beauty products that shine from the inside out. Starting with a rigorous selection of ingredients and packaging materials, combined with our insistence on proven efficacy, the lab builds highly effective and clean formulas with zero-carbon automated production to create truly green and inspiring products that bring beauty and sustainability to the beauty industry and consumers.

GMA Lab

The Genetic Medical Application Lab (GMA Lab) established a health genetic database to develop advanced products, such as personalized nutritional supplements and skin care products. This database is fully equipped to perform DNA, mRNA, and protein analysis. The laboratory also develops reagents for various pathogens, combining biological information and research and development capabilities to create the most accurate detection technologies.



ARMTE Lab

The Application of Regenerative Medicine and Tissue Engineering Lab (ARMTE Lab) focuses on regenerative medical devices. The key technology is the application of biomaterials for tissue repair and filling functions of medical device products. At the same time, it has the manufacturing technology for collagen, bioceramics and hyaluronic acid, and other matrix materials.



MIA Lab

The MIA Lab utilizes cutting-edge automated equipment to uncover the key to each raw material's differentiation. We analyze and identify natural substances and microbial metabolites and scan their reactions to various cells in the human body to find the effective ingredients and parts that are beneficial to consumers.



ART Lab

The Advanced Regenerative Therapy Lab (ART Lab) dedicates itself to developing cell therapy technologies ranging from in vitro culture of immune cells and stem cells to fibroblast and hematopoietic stem cell therapy technologies. By combining the raw materials produced by our unique bio-resource data mining with a cellular efficacy validation platform to understand the impact of raw materials on human stem cell activity and functionality, we can produce the highest quality cellular preparations through ART Lab's proprietary cell culture technology.



Synthetic B. Lab

The Synthetic Biology Lab (SBL Lab) is the first to develop human collagen and hyaluronic acid for medical material applications. By combining big data and artificial intelligence, we can design, write or modify the genome of microorganisms to produce high performance, high stability, and high content biomaterials. The process utilizes a non-animal fermentation purification model that ensures bio-sustainability.

TCI’s Three Core Technologies in Supplements and Skincare Products

Technology 1

In 2018, TCI started a new business model of “Bio-Resource Data Mining,” using genetic technology, big data, automation, an intelligent formulation platform, and Industry 4.0 manufacturing, as well as real-time fluorescence quantitative analyzer, AOI (automated optical inspection), high-speed high-throughput sample processing arm, fully automated nucleic acid extraction, and fully intelligent six-axis arm. These highly automated devices, usually only seen on the screen, start by integrating big data and turning artificial intelligence and automation labs into reality, combining the use of global biotechnology resources to create high-performance products. The “Bio-Resource Data Mining” model combines seven extraction and biotransformation processes, 100 cellular efficacy platform experimental evaluations, 200 gene regulation performance mechanisms, and 15 natural substance composition analyses through automated research and development. Each active ingredient goes through 17,700 experiments, vertically integrated and automated through “Bio-Resource Data Mining,” resulting in a 70-fold increase in efficiency in R&D.

Technology 2

DOUBLE NUTRI®, an innovative technology developed by TCI, heralds a breakthrough in nutrition supplementation through the tailored application of liposome encapsulation technology. This cutting-edge advancement not only enables the harmonious fusion of water and oil-soluble active ingredients but also facilitates seamless liposomal penetration of cell membranes, thereby significantly enhancing the efficacy of our supplement products. TCI has meticulously conducted IRB human clinical trials, demonstrating an impressive 133% increase in the bioavailability of Vitamin C when utilizing the DOUBLE NUTRI® technology in comparison to standard Vitamin C. This versatile technology can be incorporated into both liquid and solid form supplements, setting TCI’s product offerings apart in the competitive market landscape.

Technology 3

LipoButy™ Technology is widely used in the skincare products that TCI developed, which utilizes submicron-level molecules to expedite the penetration of the serum, enabling the functional ingredients to pass through the cell membrane. It is the exclusive technology in the industry to encapsulate the entire customized formulation in liposomes. The data proved that the efficacy and efficiency of applying the products are both increased by the LipoButy™ technology.



R&D Results of Integrated Bioscience Design

Since 2012, TCI has been committed to the “AgriUpcycling Turning Waste to Wealth” upcycling project in response to the pressing challenge of climate change. Leveraging our proprietary “bioresource data mining platform” we have systematically explored the untapped potential of discarded agricultural by-products, investigating whether they still harbor valuable structures and ingredients with potential health benefits. In 2022, TCI made a strategic move to expand its global presence, investing NTD \$670 million in research and development.

This substantial investment yielded remarkable outcomes, notably the creation of Happy Banana®, a natural ingredient that has garnered significant international recognition and became our inaugural New Dietary Ingredient (NDI) to receive certification from the US FDA (Certificate No.: 1206) in 2021. Furthermore, we introduced Happy Angel®, an extract derived from banana stamen, as a key ingredient for combating hair loss, which also received approval from the US FDA as an NDI (Certificate No.: 1205).

At TCI, we are proud to champion a sustainable circular economy ecosystem, where agricultural by-products are upcycled, making a meaningful contribution to addressing the critical issue of food loss while supporting our commitment to environmental responsibility.

Important New Formulas

Plant-based Ceramide Anti-aging Product

Rocket apple Slimming & Fat burning Product

TCI 250 Vaginal & Urinary Tract Health Probiotic ProductTCI 007 Immunity Booster & Anti-allergy Probiotic Product

TCI 666 Joint Health Probiotic Product

TCI 853 Anti-Hair Loss & Scalp Health Probiotic Product

VeCollal Vegan Collagen Product

Blood peach Circulatory Heath & Anti-aging Product

New Plant-based IBD Functional Ingredients

[White Jade Pomegranate Extract]

Using the high-temperature sporoderm-broken extraction technology to maximize resources, releasing the most natural antibacterial agents found in white jade pomegranates, such as polyphenols, flavonoids, and tannic acid. Experimental validation has confirmed its effectiveness in alleviating discomfort in intimate areas. In 2022, TCI was honored with the ITE London International Invention Award.

[Yushan Cherry Blossom Extract]

The Yushan cherry blossom is rich in polyphenols, flavonoids, lignin, and other antioxidant compounds. It contains unique cherry blossom glycosides and anthocyanins, which possess the ability to reduce the formation of Advanced Glycation End Products (AGEs) and resist skin aging. Due to its precious 14-day blooming period, TCI utilizes extraction technology to preserve the essence of cherry blossoms. The experiment has demonstrated its efficacy in enhancing skin vitality and accelerating metabolic processes, activating skin regeneration factors. This achievement was also recognized and awarded at the 2022 iCAN International Invention Awards in Canada.

[Banana Flower Extract – Anti Hair Loss]

TCI extracts key components from banana flowers that promote hair follicle cell proliferation, inhibit DHT generation, and effectively slow down follicle damage, utilizing banana flowers in products designed for preventing hair loss. This achievement has not only gained approval from the U.S. FDA (Certificate No: 1205) but also earned finalist positions in the 2023 World Food Innovation Awards and the U.S. Nutritional Ingredients Grand Awards.

[New Probiotics IBD Functional Ingredients]

In response to the change of dietary habits and the associated health concerns, TCI developed functional probiotics. This includes the TCI227 Gout Relief Probiotics for alleviating symptoms of arthritis, TCI803 Gastric Protection Probiotics for protecting the stomach lining and reducing inflammation, and TCI904 Fat Burning Probiotics for suppressing fat enzyme activity and reducing fat accumulation. Symbiotic Bacteria (Symbiobiotics), is a type of lactobacillus (Lactobacillus Fermentum) selected from breast milk. Breast milk is a key factor in influencing the development of an infant’s gut microbiome. It effectively breaks down lactose and alleviates symptoms of lactose intolerance.

[Delivery System Innovation]

TCI employs exclusive formulation innovation technology, the Micro-Lipid Encapsulation Technology –Double Nutri®, ensuring product stability, emulsion stability, and rapid absorption without the need for physical digestion intervention. This technology enhances absorption rates by 22% and concentration rates by 30%, while completely retaining the stability and efficacy of the active ingredients. The Lipo powder utilizes micro-lipid encapsulation technology, proven in human experiments to have superior absorption compared to conventional vitamin C formulations. Lipo Vit C (vitamin C encapsulated with TCI’s Double Nutri® technology) has excellent absorption and can stay in the body for up to 8 hours, resulting in a two-fold increase in absorption. TCI’s exclusive formulation innovation technology provides customers with more efficient products, reduces packaging waste, and significantly lowers carbon emissions. This technology obtained 13 patents domestically and internationally and received the 2022 National Innovation Award.

Low-Carbon Trend

[Green Product]

Recognizing the irreversible impact of plastic packaging on the environment and oceans, TCI has established an Environmental Packaging Materials Laboratory since 2022. Our goal is to achieve zero waste to landfill at the production level by 2030. We integrate the principles of the circular economy, focusing on waste reduction in design and the application of biobased materials. Our aim is to create products that can biodegrade or be easily recycled after use. TCI is committed to ongoing investment in sustainable product design and is actively involved in the development of multifunctional packaging materials that combine aesthetics and practicality. By 2025, we anticipate that 30% of our products will embody green design concepts.

1. Packaging Material Upcycling Technology

TCI, in collaboration with its suppliers, has initiated research and development of recycled materials known as PCR (Post-Consumer Recycled) in its Environmental Packaging Materials Laboratory. These raw materials are sourced from the recycling of plastic waste from the ocean. Through multiple rounds of testing, formerly non-recyclable aluminum-plastic packaging has been partially upgraded. The result is a single-material, non-toxic, environmentally friendly facial mask pouch made from EVOH. The intermediate layers are replaced with recycled plastics, ensuring both stable quality and compliance with international safety standards. This product has now successfully entered the market.

2. VeCollal®

VeCollal®, based in Belgium, is the world's first company to develop plant-based collagen with scientifically validated data. Through a strategic alliance with TCI, VeCollal® has released numerous scientific validation data internationally. TCI will join hands with VeCollal® to promote the world's first biomimetic collagen efficacy raw materials closest to human collagen. In addition, the Company has already developed a variety of nutraceutical applications. TCI will create biomimetic collagen efficacy nutraceutical products made from animal-free raw materials, low carbon emission, sustainable, VeCollal® collagen health supplements for customers in 64 countries.

3. Trackable Marketing Technology

In terms of product packaging, TCI invested in digital printing, which is more energy-efficient and carbon-reducing than traditional printing. With the "trackable marketing technology" and platform, customers can conduct marketing activities, such as raffles and gift sending, and discount coupons, after adopting the "trackable marketing technology" platform (i.e., each product has a unique barcode). In China, for example, marketing campaigns are paperless, reduce cross-city movement and significantly increase customer engagement rates.

In addition, the Company made efforts in the labeling of drink bottles. Traditional collagen drinks use 106mm*64mm bottle labels. However, we reduced them to 55mm*35mm, and the new carbon reduction labels are estimated to emit 212.76 kg CO2e per 100,000 labels, a reduction of 71% in carbon emissions compared to traditional bottle labels.

4. Green Lyophilized Mask

TCI employs freeze-drying technology to transform the essence extracted from agricultural by-products into a liquid form. This essence is then infused into natural fiber cloth, and the final product is packaged in a recyclable paper bag. This approach significantly reduces the weight of the physical product by at least 20g, resulting in a substantial decrease in carbon emissions during the transportation process. From source to consumer, the entire journey is characterized by a low-carbon footprint. The dry mask emphasizes an inside-out approach to environmental sustainability. The cloth is crafted from 100% natural fibers, and the inner material incorporates TCI's special plant-derived ingredients, such as Taiwan's unique red quinoa, pineapple peels, and discarded unripe citrus fruit.

5. Taiwan Djulis—Recyclable Skincare Containers

In 2022, TCI has elevated the utilization of Taiwan red quinoa agricultural by-products to full utilization, with a focus on reducing carbon emissions and waste. By employing the residual by-products of red quinoa extraction in conjunction with skincare product packaging, a circular economy design has been implemented. The packaging consists of separate outer shells and inner capsules. The capsules are made from a combination of red quinoa by-products and biodegradable plastics. Consumers can replace the inner capsules instead of purchasing complete packaging, promoting responsible consumption to protect the environment. The design philosophy of eco-friendly packaging for Taiwan's red quinoa is rooted in a commitment to environmental preservation, embracing the principles of the 3R approach (Reduce, Reuse, Recycle). The biodegradable inner capsules have low energy consumption and low carbon emissions, reducing waste. The bottle caps of this new packaging are also made from recycled ocean plastics, contributing to a plastic-reduction initiative that is environmentally and ocean-friendly.



Committed to Environmental Protection

- 1.5 ° C Target in Line with The Paris Agreement
- 100% Renewable Energy by 2030
- Net Zero by 2040
- Zero Waste from Production to landfill by 2030
- Water Intensity Reduce by 25% by 2030 – Base year 2022

Management of Greenhouse Gas Emissions

Scope 1 and 2 Emissions

According to the Greenhouse Gas Reduction and Management Act enacted in Taiwan, TCI is not obliged to report its greenhouse gas emissions to the government. However, with the rise of international climate initiatives, climate change-related risk management, greenhouse gas management, and greenhouse gas emissions information disclosure has become a key issue for business operations. TCI has voluntarily started to conduct organizational greenhouse gas inventories, which indicate direct (scope 1) emissions and indirect (scope 2) emissions, in Pingtung Precise iManufacturing Center (Rock Park) in accordance with the GHG Protocol every year since 2018, while the Shanghai Precise iManufacturing Center (Golden Mountain Park) independently conducts organized greenhouse gas inventory and has gained third-party verification against ISO 14064-1. The direct emissions in 2022 are 4,543 tCO2e, and the indirect energy emissions are 16,480 tCO2e.

Pingtung Precise iManufacturing Center (Rock Park)						Shanghai Precise iManufacturing Center (Golden Mountain Park)
Year	2018	2019	2020	2021	2022	2022
Direct (tCO2e)	2,540	3,800	4,917	4,296	3,723	820
Energy indirect (tCO2e)	6,051	8,021	10,205	10,683	9,954	6,526
Total (tCO2e)	8,591	11,821	15,122	14,979	13,677	7,346
Emission Intensity (tCO2e/USD\$ Million revenue)	51	58	74	73	82	91

Note 1: Greenhouse gas emissions data only covers Pingtung Precise iManufacturing Center (Rock Park) and Shanghai Precise iManufacturing Center (Golden Mountain Park).
Note 2: Greenhouse gas emissions intensity is the total tons of emissions from each factory/USD\$ Million revenue of each factory of the current year.

Scope 3 Emissions

TCI uses the GHG Protocol Evaluator Tool to identify the main emission items of Scope 3. After identifying significant emission categories, the Company found that "purchased goods and services" accounted for more than 80% of total Scope 3 emissions. Therefore, TCI decided this to be a voluntary inventory of Scope 3 emissions in 2022 and sent it to a third party for verification. In the future, TCI will continue collaborating with the supply chain to promote environmental sustainability and achieve an absolute reduction of 15% in Scope 3 by 2030 (with 2018 as the base year), set in line with the target scenario of the Paris Agreement to control the temperature increase by 1.5°C.

Energy Management

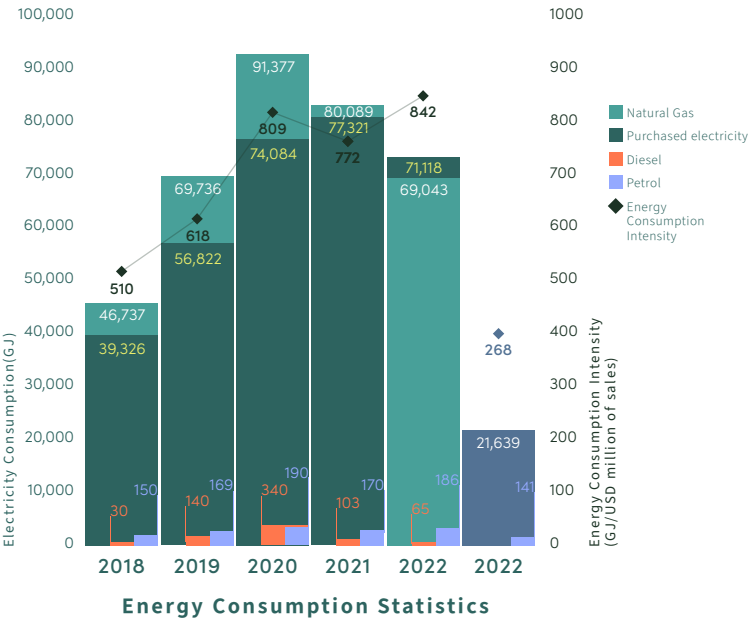
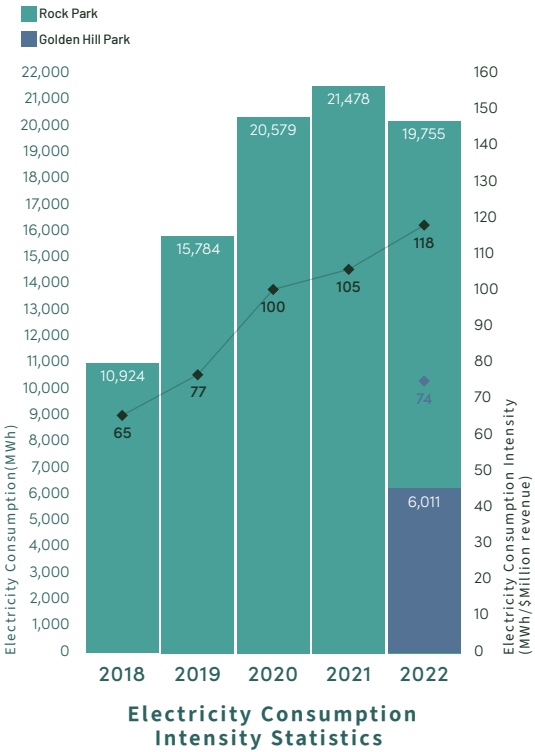
TCI's Pingtung Precise iManufacturing Center (Rock Park) and Shanghai Precise iManufacturing Center (Golden Mountain Park) have successfully implemented the ISO 50001 energy management system, complemented by the installation of solar power systems on the rooftops. Notably, the S11 Eco Facial Mask Factory and the S12 automated warehouse have secured Leadership in Energy and Environmental Design (LEED) green building certification from the U.S. Green Building Council (USGBC). In response to the Industry 4.0 trend, TCI initiated intelligent transformations in its Taiwanese factories.

The S12 factory in the Pingtung Agricultural Science and Technology Park stands out with its automated warehouse featuring 8,238 storage spaces, automated picking and handling equipment, and efficient automated guided vehicles. The entire production line benefits from a comprehensive automation system. Following commands from the Manufacturing Execution System (MES), the automated warehouse seamlessly handles materials, leading to a fully unmanned production process from filling to packaging. Coupled with production management enhancements, improved production scheduling forecasts contribute to heightened overall efficiency, reduced waste, and lower energy consumption. Equipping the factory roofs with solar panels aims to supply renewable electricity, positioning it as TCI's hub for human-machine control and intelligence, evolving into a low-energy consumption intelligent production base.

In pursuit of the 100% renewable energy usage goal by 2030, TCI maintains ongoing investments in projects and capital expenditures to enhance energy efficiency. Initiatives include upgrading energy-efficient equipment, replacing LED lighting systems, installing smart meters and energy monitoring systems, and integrating cloud-based AI computing. In 2022, TCI focused on implementing an energy conservation program to address compressed dry air (CDA) piping leakage. Additionally, the introduction of a heat pump system in the S12 factory, replacing traditional steam heating for air-conditioning tank hot water bypass in the clean room workspace, resulted in a recognized power saving rate of 7.14% as per the energy declaration in December 2021. Looking ahead to 2023, the company anticipates energy-saving benefits from the magnetic chiller, further improvements in air pressure pipeline leakage inventory, and optimizing the utilization rate of the magnetic chiller (replacing the S5 chiller) to achieve an expected power-saving rate of 38%. Furthermore, the steam recovery system in the Shanghai Precise iManufacturing Center (Golden Mountain Park) is set to heat soft water, saving an estimated 25 tons of steam per month for direct supply to tanks 1 and 2 of the cooling machine.



Energy Consumption Statistics



Management of Water Use

TCI's Pingtung Precise iManufacturing Center (Rock Park) uses tap water as the industrial water source, with approved water consumption of 1,500 metric tons per day (1,500 CMD). In 2022, the four factories in the PABP Factory site use a loop setup to convert the waste heat (steam) into condensate. They are then used to refill the steam boilers to improve recycling efficiency. S11 Eco Facial Mask Factory also designed the rainwater recycling pipeline to recover rainwater for planting and irrigation and RO water for toilet flushing. In addition, the Shanghai Precise iManufacturing Center (Golden Mountain Park) also implemented countermeasures, including recycling bottle-washing RO water to directly supply water for rewarming machines every month, adopting an intelligent water conservation system to remotely monitor the water meter data regularly to enhance water management efficiency, and recycling water from the first stage of water treatment to directly supply water to factory cooling towers and toilets, which estimated to save 1,050 tons of water every month. The Jinshan Factory was honored as a water-saving enterprise in 2022. In the future, TCI will continue to plan water conservation measures and water recycling programs and expects to invest about NT\$5 million to NT\$8 million in discharge water recycling equipment within two years. The Company expects to start a water reclamation plan within three years and will list it as a quarterly tracking issue in the ESG committee to manage water resources effectively. In 2022, the factory's recycled and reclaimed water ratio reached 12%. The Company expects there to be opportunities for an overall reduction in the amount and intensity of water consumption in the future and gradually achieve a 25% reduction in water intake intensity by 2030.

Management of Wastewater

The wastewater treatment plant of the Pingtung Agricultural Biotechnology Park Administration treats the wastewater from TCI's factory. The S5 Functional Drink Factory and S9 Functional Food Factory have built separate wastewater treatment facilities to reduce water temperature, pH, suspended solids, chemical oxygen demand, biochemical oxygen demand, and other water quality items before discharging it to the Pingtung Wastewater Treatment Plant. The Company also commissions an inspection company approved by the Environmental Protection Department to conduct wastewater quality inspections every six months to ensure that the overall wastewater management process complies with the Water Pollution Control Law and the agricultural biotechnology park sets water quality standards. The factory had no leaks, spills, or water quality violations in 2022.

Waste Management Statistics

Industrial Waste

Pingtung Precise iManufacturing Center (Rock Park)					Shanghai Precise iManufacturing Center (Golden Mountain Park)
	Year	2020	2021	2022	2022
Reuse/recycle		581.4	740.5	604.3	253
Non-reusable/non-recyclable	Incineration	0	0	0	0
	Landfill	516.9	719.7	518.7	100
	Other disposal	0	0	0	0
Total Amount(tons)		1460.2	1098.3	1123	353

Hazardous Industrial waste

Pingtung Precise iManufacturing Center (Rock Park)					Shanghai Precise iManufacturing Center (Golden Mountain Park)
	Year	2020	2021	2022	2022
Reuse/recycle		0	0	0	0
Non-reusable/non-recyclable	Incineration	0	0	0	1.071
	Landfill	0	0	0	0
	Other disposal	1.1	0.6	0.675	0
Total Amount(tons)		1.1	0.6	0.675	1.071

Note: The waste statistics only cover Pingtung Precise iManufacturing Center (Rock Park) and the Shanghai Precise iManufacturing Center (Golden Mountain Park) from 2022 onwards.

Waste Management

For general industrial waste, the Company applies for permission and reports the quantity per the law, entrusts qualified vendors to clean and treat the waste and aims to improve the recycling rate of process waste and reduce the amount at the source. In terms of the division of labor for waste disposal, the production department performs waste disposal, strictly examines the qualifications of waste disposal vendors, and performs waste classification management; the environmental safety unit monitors and inspects the waste removal and disposal status through occasional random inspections to ensure that waste is handled correctly. In the pre-treatment process, TCI has changed the wastewater treatment dosage to achieve sludge reduction. In addition, the Company recycles and sorts waste, separating and recycling two or more combinations of plastic-paper mixtures, aluminum-iron mixtures, and others, and declaring and recycling reusable waste. TCI sells valuable waste to external parties or has external organizations recycle it. On the other hand, the Company entrusts qualified vendors for the disposal and transportation of non-valuable waste, stores hazardous industrial waste in dedicated hazardous waste storage facilities, and then entrust qualified vendors for removal and transport. To reduce the amount of waste at the source, TCI starts from the outer packaging of raw materials, prioritizing environmentally friendly materials and avoiding excessive packaging. In addition to recycling raw materials for reuse, the Company cooperates with recycling companies to collect packaging materials from domestic customers by qualified contracted recyclers and provide packaging materials in good condition for reuse at production sites. TCI keeps monthly statistics on the number of package materials recycled, the recycling rate, and the achievement rate and reviews the items that do not meet the target. Through the packaging recycling management mechanism, the Company extends the materials' life cycle, reduces material usage and costs, and reduces waste generation. Pingtung Precise iManufacturing Center (Rock Park) used a total of approximately 276.9 metric tons of plastic material (including packaging, cushioning, film, and other materials). To achieve the goal of zero waste at the production end by 2030, the Company shall draft plastic reduction measures and reduction targets and continue to monitor the total amount of waste.



A Positive and Caring Workplace

- Joyful Workplace
- Occupational Health and Safety



Joyful Workplace and Employee Care

Competitive Compensation

In the pursuit of fair and competitive compensation, TCI places a high priority on providing employees with reasonable rewards, aiming to attract and retain exceptional talents while considering the rights of shareholders and the living standards of its workforce. This commitment aligns with the company's overarching goal of ensuring long-term and stable development.

TCI consistently reviews and adjusts salary levels, taking into account various factors such as price levels, market dynamics, salary standards, and local legal requirements. This approach is complemented by a comprehensive promotion system. In the fiscal year 2022, the average annual salary for non-managerial employees at TCI reached NT\$916,000. Alongside a fixed salary that surpasses industry averages in Taiwan, the company extends additional benefits such as year-end bonuses and mid-year operating dividends, contingent on the year's operational performance.

For the fiscal year, the total expense for employee benefits amounted to NT\$602,102 (NT\$ thousand), with an average benefit expense per employee of NT\$1,014 (NT\$ thousand), and an average salary expense per employee of NT\$845(NT\$ thousand).

TCI implemented an average salary adjustment of 13% in 2022, with non-managerial employees experiencing an average adjustment of 11%. Notably, this exceeds the industry norm, as indicated by a survey from 104 Job Bank, where the average salary adjustment rate for companies in 2022 stood at 3.1%. The company employs a quarterly or semi-annual salary adjustment system, ensuring a more favorable adjustment rate than the industry standard. Moreover, TCI actively promotes regular performance discussions between supervisors and their teams, granting supervisors the authority to make salary adjustments based on individual and team achievements. This initiative fosters a dynamic and transparent approach to compensation management within the organization.

Ratio of Average Annual Employee Salary Between Men and Women

	Male	Female
Taipei Headquarters	1.08	1
Pingtung Precise iManufacturing Center (Rock Park)	1.15	1
All Employees	1.16	1

Full-time Salaries for Non-managerial Employees

	2020	2021	2022
Number of People	642	569	499
Average Salary	1,028	949	916
Median Salary	923	842	811

(NT\$ thousand)



TCI Employee activity

Benefit System

At TCI, we prioritize our employees' well-being by offering competitive salaries, a robust compensation package, and a diverse range of benefits designed to meet their varying needs. To oversee and enhance employee welfare, the company has established the Employee Welfare Committee, dedicated to supporting not only our employees but also their families. A hallmark of our employee welfare system is the innovative "TCI Coin," a virtual currency with a one-to-one value equivalence with the Taiwan Dollar. This unique system allows employees to use "TCI Coins" for a multitude of purposes, including employee purchases, recurring "TCI Coin Events," and exclusive activities organized by the Administration Services Center. These activities cover both dynamic events like domestic and international tours, family trips, standup paddleboarding, and aerial yoga, as well as static events such as dining at Michelin Star Restaurants, booking entire luxury cinemas, salon reservations, and participating in courses like flower arrangement and DIY soap making.

The distribution of TCI Coins is based on an employee's role and seniority, with monthly allocations. Additional TCI Coins are awarded for exceptional performance, successful project contributions, participation in public welfare activities, and the initiation of innovative sustainability proposals. Employees also receive TCI Coins during their birthday month as a special token of appreciation. In total, the face value of TCI Coins (excluding bonuses) for the year 2022 amounts to approximately NT\$12,000,000. This comprehensive system reflects our commitment to recognizing and rewarding our employees for their dedication and contributions to TCI's success.



TCI Offers TCI Token for Employee's Internation Travels

Management of Occupational Health and Safety

Targets

- Placing occupational health and safety policies at the center of business management to create a pleasant and safe workplace for employees.
- To comply with relevant laws and regulations and practice ESG management by establishing the occupational health and safety system.
- Establish a more comprehensive occupational health and safety supporting culture by strengthening safety awareness and training of every employee, with a training coverage of 100%.
- The executive management shall serve as the top decision-making body for occupational health and safety-related plans and policies.

Occupational Injury and Disease Statistics

In 2022, no occupational injury incidents occurred at TCI's Pingtung Precise iManufacturing Center (Rock Park) and Shanghai Precise iManufacturing Center (Golden Mountain Park). No occupational injury resulting in death, severe occupational injury, or occupational disease.

		Pingtung Precise iManufacturing Center (Rock Park)					Shanghai Precise iManufacturing Center (Golden Mountain Park)
		2018	2019	2020	2021	2022	2022
Employee	Incidence of fatalities due to occupational injuries	0	0	0	0	0	0
	Incidence of severe occupational injuries	0	0	0	0	0	0
	Lost Time Injury Frequency Rate (LTIFR)	1.02	0	0	2.04	0	0
	Incidence of death due to occupational diseases	0	0	0	0	0	0
	Recordable incidence of occupational diseases	0	0	0	0	0	0
All non-employees whose jobs and/or workplaces are under the control of the organization	Incidence of fatalities due to occupational injuries	0	0	0	0	0	0
	Incidence of severe occupational injuries	0	0	0	0	0	0
	Lost Time Injury Frequency Rate (LTIFR)	0	0	0	0	0	0
	Incidence of death due to occupational diseases	0	0	0	0	0	0
	Recordable incidence of occupational diseases	0	0	0	0	0	0

Note 1 Occupational injury and occupational disease statistics only cover the Pingtung Precise iManufacturing Center (Rock Park) and Shanghai Precise iManufacturing Center (Golden Mountain Park)

Note 2 The statistics do not include commuting accidents; the incidence rate is taken at two decimal places, and the third place is rounded off unconditionally.

Note 3 Incidence of fatalities caused by occupational injuries = Number of fatalities caused by occupational injuries / Total working hours * 1,000,000.

Note 4 Incidence of severe occupational injuries = Number of severe occupational injuries / Total working hours * 1,000,000.

Note 5 Lost Time Injury Frequency Rate (LTIFR) = Number of recordable occupational injuries / Total working hours * 1,000,000.

Note 6 Incidence of deaths caused by occupational diseases = Number of deaths caused by occupational diseases / Total working hours * 1,000,000.

Note 7 Incidence of recordable occupational diseases = Number of recordable occupational diseases / Total working hours * 1,000,000.

Note 8 Total working hours are calculated by multiplying the number of employees at the end of each month of the year by the number of national working days in each month multiplied by the standard working hours (nine hours per day).

Social Prosperity

- Navigating Education for Tomorrow
- Azure Ark Project
- Sunlit Biodiversity



NAVIGATING EDUCATION FOR TOMORROW

1. Sunrise Reading Companions Project

2. Rural Students Lunch Boost

3. Corner Bookshelves to Shape Future

4. Dream Career Exploration Camp

5. Science and Humanities Expedition

6. Horizon Ascent Pole Vault

7. Sea to Land Public Educational Exhibit

8. Conservation Internship Program

7.1 Social Welfare

MATERIAL ISSUES
MANAGEMENT POLICY

TCI’s Commitment

Through industry-academia cooperation, participation in local education, and public welfare activities, the Company enhances employees' social care awareness and corporate identity, and the community and society substantially benefit.

Key Actions

- 1. Collaborating with educational institutions to engage in marine ecological records, aiming to enhance awareness of endangered wildlife conservation issues.
- 2. With flipped education as the central theme, the Company long-term cooperates with enterprises, science museums, local public welfare organizations, and other organizations in science education activities.



2022 Performance

- 1.Taitung County Sea Turtle Reproductive Ecology Conservation Research Project: TCI, with a focus on marine ecology, partnered with National Taiwan Ocean University to witness the birth of **2,273** endangered sea turtles.
- 2.Corner Bookshelf Project: As of the end of 2022, we have provided support to a total of 218 schools and institutions, including 175 elementary schools and 43 junior high schools in Pingtung County, benefiting approximately **5,630** individuals.
- 3.We conducted 46 industry-academia interactions, one community concert, and collaborated with the Science Museum to promote science education exhibitions in Pingtung, with a total of **12,585** participants.

2023 Target

To engage with the community through activities such as visits, science education, charity initiatives, and other interactions, with the aim of involving **20,000** participants.

Annual Donation Record(\$/NTD)

Item/ Year	2019	2020	2021	2022
Industry association or tax-exempt group expenditure	895,470	893,670	881,100	2,471,516
Community Care and Public Welfare Activities	200,000	1,583,000	1,326,120	5,077,238
Environmental Research and Ecological Conservation	-	-	3,886,975	2,567,624



Corner Bookshelves to Shape Future

TCI and Yungchiang Foundation, both hailing from Pingtung, have long been devoted to addressing issues in rural education, deeply understanding the needs of Pingtung. TCI believes that a book serves not only as a conduit for knowledge and hope but also as a catalyst for entirely new opportunities for children. Therefore, since 2016, TCI has launched the "Corner Bookshelves to Shape Future" project, commencing in rural elementary schools in Pingtung. Bookshelves are strategically placed on school premises, stocked with hundreds of books, aiming to provide children with a zero-distance access point to knowledge. The goal is to empower students in Pingtung to transcend geographical limitations and foster broader perspectives.

Furthermore, in the pursuit of establishing a comprehensive carbon-reducing network, TCI, through TCI Academy, advocates on campuses. Energy-efficient and carbon-reducing books or picture books are integrated into the bookshelves, embedding the spirit of sustainability into the fabric of daily reading.

As of the end of 2022, TCI has successfully implemented bookshelves in 218 elementary schools throughout Pingtung County, sponsoring new books monthly for students to borrow, estimating to create reading opportunities for over 5,630 students. After completing the first phase of bookshelf installation in rural elementary schools, the coverage is gradually expanding to non-rural areas in Pingtung County and various levels of schools beyond elementary, creating reading opportunities for approximately 30,000 students.



See the Future with Enhanced Educational Programs

TCI collaborated with the Yung-Chiang Foundation in the Yung-Chiang and TCI Series of Educational Events, providing young students with diverse forms of education. Through the involvement of experts from different fields, students are exposed to career-related content, allowing them to envision their future aspirations. In 2022, TCI organized events such as " Dream Career Exploration Camp ", " Science and Humanities Expedition " and the " Horizon Ascent Pole Vault ". TCI traveled to Eastern Taiwan with the Yung-Chiang Foundation to implement the " Study Self-transformation Day " at Tao-Yuan Elementary School, a KIST-concept public school managed by the private sector. In addition, the program invited students and teachers from San-Min Elementary School in Hualien and Wan-An Elementary School in Chishang Township. The event offered students a variety of curriculum choices, including skincare, marine and terrestrial ecology, and Covid-19 prevention concepts. In total, the event attracted 200 participants in 2022.

Additionally, TCI collaborated with Happy Recome Group in the " Dream Career Exploration Camp ". The project led students to explore different professions, including health, craftsmanship, technology, gourmet, aesthetics, and lifestyle, inviting professionals from various fields to guide the students and help them understand different careers and development aspects. Thus, the students can meet talents from all walks of life and prepare them for future career choices. In 2022, a total of 40 students participated in the program. The " Science and Humanities Expedition " allows Pingtung students to explore science, space, flora, and fauna exhibits at the National Museum of Natural Science in Taichung. In addition, the program provides students with room, board, and fares for transportation; thus, students and schools can invest more in education. As of 2022, a total of 692 students participated in the Taichung Science Camp.

Since 2016, TCI has initiated two projects, the " Sunrise Reading Companions Project " and the " Rural Students Lunch Boost. " Annually, we provide a scholarship to support Syuhai Life School, enabling local students to complete their homework with volunteers after school. Through the financial support of the scholarship, we aim to illuminate the educational journey for these students. Additionally, TCI allocates an annual fund for nutritious lunches, fostering balanced and healthy growth for the students of Vungalid Elementary School.

TCI, starting from Pingtung, is dedicated to offering equal opportunities for educational development in various regions. We aspire to bridge the urban-rural gap and eliminate the knowledge barriers it brings.



Science and Humanities Expedition

AZURE ARK PROJECT



Sea Turtles Conservation-
Understanding Marine Ecology

After successfully producing mask packaging materials from recycled plastics and biodegradable raw materials (BIO PBS), TCI began to invest resources in marine-related research. In 2022, TCI provided a grant of NT\$250,000 to the Institute of Marine Biology at National Taiwan Ocean University for the Sea Turtle Survey. In TCI's "Sea Turtle Legacy for Generations" 33 nests and an 81% hatching rate, resulting in the birth of 2,273 newborn sea turtles were recorded in 2023. Through this project, researchers and students gain a better understanding of the spatial and temporal variations in wild sea turtle populations. This knowledge is crucial for implementing appropriate management measures and effective conservation strategies. In addition, the project allows the government and academia to take appropriate actions to address the threat of extinction and environmental hazards faced by sea turtles, ensuring the survival of these populations.



Transfer of Knowledge of Land and Sea-
Marine Ecology Lecture

TCI conducted a series of marine ecology education lectures for a thousand participants. The objective is to impart knowledge on marine and terrestrial ecosystems, ecological sustainability, citizen science, and other relevant topics to young students. Through the educational content, we aim to convey concepts of environmental friendliness and sustainable ecology, encouraging children to embrace a sustainable lifestyle from an early age. The Thousand-Person Marine Ecology Education Lectures were initiated in 2022, with a cumulative participation of 1,086 individuals as of 2023. Moving forward, we are committed to annually inviting at least 1,000 elementary and middle school students to participate in these educational sessions.

Sea to Land Public Educational Exhibit

Sea to Land Public Educational Exhibit Starting in 2021, TCI collaborated with the National Museum of Natural Science to organize the "Sea to Land Public Educational Exhibit", which features vertebrate animals and introduces the evolutionary process of animals from swimming in the ocean, strolling on land to soaring in the sky. To provide students with a comprehensive touring experience during the special exhibition, TCI arranged for colleagues to conduct professional tour guide training and learn how to explain to students the evolutionary process of vertebrate animals in the ocean, on land, and in the sky in hopes that through the special exhibition activities, children will be able to see the richness of living organisms, thus planting the seeds of interest in their hearts and inspiring future scientific exploration. The "Sea to Land Public Educational Exhibit" attracted 1,673 visitors, and the instructional videos recorded during the exhibition had 3,660 views.



Sea to Land Public Educational Exhibit

SUNLIT BIODIVERSITY ENDEAVOR

1. AgriUpcycling Turning Waste to Wealth

2. Rural School Agriculture Education Initiative

3. Sunlit Biodiversity Park

4. Low Carbon GAP Farming

Rural School Agriculture Education Initiative

Knowledge Transfer on Ecology, Plants, and Farming Practices

The ShenNong Project that TCI participated in was hosted in Pingtung's Silin Elementary School and Chau Nan Primary School, with 155 and 72 students participating in each project respectively. The project allows students to experience organic farming, gives them a better understanding of the local agricultural culture, and encourages them to learn about the impact of humans and the ecosystem through on-site observation while promoting the elementary school's unique food and agriculture curriculum. Furthermore, after TCI introduced the Shen Nong Project to Silin Elementary School, its student enrollment increased by 68% over the past six years.



Sunlit Biodiversity Park

Create ecological, industrial, and future prosperity with the power of biology!

In recognition of its unique and diverse strengths in developing tropical agriculture, the National Pingtung University of Science and Technology spared no effort in nurturing agricultural talents over the years. In 2021, TCI and the National Pingtung University of Science and Technology worked together to complete land preparation and irrigation systems on 2.5 hectares of land to create a "Sunlit Biodiversity Park" for diversified crop cultivation in compliance with the GLOBAL G.A.P. management model. The park rehabilitates Taiwan's native plants, cultivation and production of bio-medical functional crops, and low-carbon agricultural tests. In 2022, three interns joined the program to understand environmental sustainability from the different perspectives of ecology, soil, and farming practices, as well as how people affect ecology, thus, giving the students more practical experience in this field and providing them with more research perspectives in the future. The Company strives to work together to develop technological agriculture, protect local biodiversity, develop a precise and healthy future, and realize plant restoration to create prosperity through three methods encompassing economic, social, and environmental aspects.

- 1. Ecological Prosperity: Restore Taiwan's native or rare plants, seed rescue, create and enhance biodiversity, and experiment with low-carbon farming methods to improve soil carbon sequestration benefits
- 2. Industrial Prosperity: Introduce environmentally friendly farming methods to create economic benefits for farmers. Develop and manufacture natural health care products and skin care products to benefit customers economically.
- 3. Future Prosperity: Cultivate prospective skilled personnel and realize a future of social prosperity.

TCI has a long history of caring for consumers and understanding their needs. Through IBD (Integrated Bioscience Design), the Company provides customers with a full range of services from product planning, marketing, research and development, design, manufacturing, quality control, legal affairs, and import/export services. The park plans to restore a variety of Taiwan's native plants, such as protea, Hibiscus sabdariffa, Rhinacanthus communis, Chiapao melon, Daylily flower, and white wax-apple, through environmentally friendly farming methods to protect the biodiversity in the area. In addition to the park, TCI also works with the World Vegetable Center on a seedling project to participate in global seed conservation initiatives and support rescuing Asian vegetable seeds to preserve more species.

Through plant restoration, TCI can protect more plant species and discover the health and economic value of native plants through the "Bio-Resource Data Mining Platform" that TCI specializes in and create industrial wealth through plant restoration. After extracting and experimenting with Chiapao melon planted in the Park, the Company sold it in famous cosmetic stores in Europe in 2022. Simultaneously, TCI and the National Pingtung University of Science and Technology conduct the "Rehabilitation Internship Program," leading students to practice cultivating and producing functional biomedical crops in the "Biodiversity Park."

The "Sunlit Biodiversity Park" also combines the research resources of different academic institutions to carry out various projects, such as: cooperating with the Endemic Species Research Institute, Taiwan Agricultural Research Institute, and the Agricultural Research and Extension Station to collect precious plant materials and conduct rehabilitation under suitable environmental conditions; cooperating with the Department of Forestry and the Graduate Institute of Bioresources of National Pingtung University of Science and Technology to conduct regular surveys to investigate the soil carbon pool and species changes in the park, and to study how to increase soil carbon sequestration capacity and biodiversity in the field. With the launch of the "Biodiversity Park" in 2021, TCI continued to invest more than NT\$2 million in 2022. In addition, the Company will continue to expand the Park considering the environmental conditions of various plants and the actual situation.



TCI Sunlit Biodiversity Park

Appendix

- ISAE 3000 Assurance Item Summary Sheet
- Third-party Assurance Statement and Assurance Report
- The GHG Emissions Validation Statement

ISAE 3000 Assurance Item Summary Sheet

No.	Assurance Item	licable Standard	Page
1	P.50 to P.51 Discloses that the average attendance rate of the Audit Committee in 2022 is 89%. P.50 to P.51 Discloses that the average attendance rate of the Remuneration Committee in 2022 is 90%.	Based on the meeting minutes and attendance records provided by the Board's committees for the Audit Committee and Remuneration Committee for 2022, in cases of remote attendance via video conferencing,visual screenshots will be relied upon for identification purposes.	P.50 P.51
2	P.114 The “Electricity Consumption Intensity Statistics” table discloses that the electricity intensity of Pingtung Precise iManufacturing Center (Rock Park) is 118 and Shanghai Precise iManufacturing Center (Golden Mountain Park) is 74 in 2022.	Electricity consumption intensity (A) is calculated by dividing "electricity consumption (MWh)" (B) by "revenue per million dollars" (C).	P.114
3	P.120 The “Water Consumption Intensity Statistics” table discloses that the water intensity of Pingtung Precise iManufacturing Center (Rock Park) is 2,075 and Shanghai Precise iManufacturing Center (Golden Mountain Park) is 1,136 in 2022.	Water consumption intensity (D) is calculated by dividing "water consumption (metric tons)" (E) by "revenue per million dollars" (C).	P.120
4	P.134 Discloses that the percentage of female employees to all employees of Taipei Headquarters, Pingtung Precise iManufacturing Center (Rock Park), Shanghai Precise iManufacturing Center (Golden Mountain Park) at the end of 2022 is 44.49%. P.134 Discloses that the proportion of female management to management employees of Taipei Headquater, Pingtung Precise iManufacturing Center (Rock Park), Shanghai Precise iManufacturing Center (Golden Mountain Park) at the end of 2022 is 44.44%.	Based on the employee information of Taipei Headquarters, Pingtung Precise iManufacturing Center (Rock Park), and Shanghai Precise iManufacturing Center (Golden Mountain Park) as of December 31, 2022, the management level is defined as those who hold the position of team leader or above.	P.134
5	P.156 “Occupational Injury and Disease Statistics” table discloses that Pingtung Precise iManufacturing Center (Rock Park) and Shanghai Precise iManufacturing Center (Golden Mountain Park) had zero serious occupational injuries in 2022. P.156 “Occupational Injury and Disease Statistics” table discloses that the recordable occupational injury incidence rate of Pingtung Precise iManufacturing Center (Rock Park) and Shanghai Precise iManufacturing Center (Golden Mountain Park) is 0 in 2022.	The incidence of death due to occupational injury is calculated by dividing the "number of serious occupational injuries (those disabled for more than six months)" by the "total number of hours worked" multiplied by 1,000,000. The incidence of recordable occupational injuries is calculated by dividing the "number of recordable occupational injuries" by the "total number of hours worked" multiplied by 1,000,000. The number of recordable occupational injuries excludes injuries from commuting accidents not caused by transportation arranged by TCI. The total number of hours worked is calculated by multiplying the number of employees at the end of each month of the year by the number of national working days in each month and the number of standard working hours (nine hours per day).	P.156

The calculation of the measurement basis is described as follows:
(1) Electricity consumption intensity (A) = “electricity consumption (MWh)” (B) divided by “revenue per million dollars” (C), where:
B = The total electricity consumption for the S12 Automated Warehouse at Pingtung Precise iManufacturing Center (Rock Park) and the total electricity generation for Shanghai Precise iManufacturing Center (Golden Mountain Park), as per the Taiwan Power Company's billing records, and as obtained from China Grid Shanghai Power Company's billing records for the year 2022. This information is also available through the Chunghwa Telecom Smart Green Energy Management System.
C = The amount of operating revenues of TCI for 2022, as audited by our auditors, was converted into U.S. dollars using the average exchange rate of New Taiwan dollars to U.S. dollars for the year 2022.
(2) Water consumption intensity (D) is calculated by dividing “water consumption (metric tons)” (E) by “revenue per million dollars” (C), where E = The water consumption of Pingtung Precise iManufacturing Center (Rock Park) and Shanghai Precise iManufacturing Center (Golden Mountain Park) in 2022 is based on the water bill from Taiwan Water Corporation and Shanghai Jinshan Tap Water Co., Ltd.

Third-party Assurance Statement and Assurance Report





The extent of the assurance work we performed were based on the identified risk areas and determined materiality, and given the circumstances of the engagement, we designed and performed the following procedures:

- Made inquiries of the persons responsible for the Subject Matter Information to understand the processes, and the relevant internal controls relating to the preparation of the aforementioned information to identify the areas where there may be risks of material misstatement; and
- Based on the above understanding and the areas identified, performed selective testing including inquiry, observation and inspection to obtain evidence for limited assurance.

We do not provide any assurance on the Sustainability Report as a whole or on the design or operating effectiveness of the relevant internal controls. Our assurance does not extend to Shanghai Precise (Manufacturing Center Information in respect of earlier periods or to any other information disclosed in the Sustainability Report for 2021.

Compliance of Independence and Quality Management Requirement

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

Our firm applies Standard on Quality Management 1, "Quality Management for Public Accounting Firms" of the Republic of China, , this Standard requires the firm to design, implementation, and operate the system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Inherent Limitations

Certain Subject Matter Information involves non-financial data which is subject to more inherent limitations than financial data. Qualitative interpretations of the relevance, materiality and the accuracy of data are subject to individual assumptions and judgments.

Limited Assurance Conclusion

Based on the procedures we have performed and the evidence we have obtained, we are not aware of any amendment that is required of Subject Matter Information to be prepared, in all material respects, in accordance with the respective applicable criteria."




Other Matter

The Management of the Company is responsible for maintaining the Company's website. If the Subject Matter Information or the applicable criteria are modified after this limited assurance report is issued, we are not obliged to re-perform the assurance work.

Hsu, Ming-Chuan

Hsu, Ming-Chuan
Partner
For and on behalf of PricewaterhouseCoopers, Taiwan
10 August 2023

The GHG Emmissions Validation Statement



Certificate

Certificat

Report no. : (TH08-218 / version 1)

Greenhouse Gas Verification Report Opinion

THGHG08218-00

Verification

Scope:

Verification

Criteria:

Verification

Objectives :

Data Period :

Verification

Data :

Global Warming Potential (GWP) :

Statement Basis :

GHG Inventory report (version :

GHG Inventory (version :

Materiality :

Type of Opinion :

Verification

Conclusion:

Date of issuance:

Signature of the representative :

Job position :

TCI (TAIWAN) PABP BRANCH (S6, S9, S12)
TCI Co., Ltd - BioCosme PABP BRANCH (S11)
No.12,Shennong Rd.,Changzhi Township, Pingtung County 90846,Taiwan(R.O.C.)
Factory
No. 21, Nongke Rd., Changzhi Township, Pingtung County 90846,Taiwan(R.O.C.)
Factory

ISO 14064-1 : 2018

According to ISO 14064-3:2018, AFNOR Asia Ltd. (AFNOR ASIA) confirms that the GHG statement (GHG inventory report) of the above-mentioned organization(s) is reported in accordance with the verification criteria agreed by both parties. AFNOR performs the verification with an objective and fair position and principle (relevant, complete, consistent, accurate, and transparent).

2022/01/01 to 2022/12/31

Direct GHG emissions (category 1): 3,723.2960 tons CO2e
Energy indirect GHG emissions (category 2): 9,953.7063 tons CO2e
Indirect GHG emissions (category 3-6): 6,674.9459 tons CO2e

2021 Year, the 8 assessment report


This statement must be interpreted as a whole with the following.
GHG Inventory report (version : V2 : Date : 2023/03/25)
GHG Inventory (version : V2 : Date : 2023/03/25)

8% (category 1 and category 2)

☒Unqualified ☐qualified (see the subsequent page) ☐disclaim the issuance


Confirm that the organization submits a GHG statement in accordance with the requirements of the verification criteria agreed by both parties, and fairly presents the GHG data and related information, which is consistent with the verification scope, objectives and criteria agreed by both parties.
Declares that the reasonable assurance level of the inventory data is category 1 and category 2.

2023/05/24




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Certificate

Certificat

Report no. : (TH08-218 / version 1)


Emissions Data for Each Category :

Category	Description of content	GHG emissions (tons CO2e)	Note
(Category 1) Direct GHG emissions	Stationary sources Mobile sources Fugitive emissions	3,723.2960	
(Category 2) Indirect GHG emissions from purchased electricity	Indirect emissions from purchased electricity	9,953.7063	local standard
(Category 3) Indirect GHG emissions from transportation	Employee commuting Business travel	421.4405	
(Category 4) Indirect GHG emissions from products used by organization	Purchase of goods	6,053.5054	
(Category 5) Indirect GHG emissions associated with the use of products from the organization	NS	NS	
(Category 6) Indirect GHG emissions from other sources	NS	NS	

Biomass burning emission : 0.0000 tons CO2e

Page 2 of 4

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Certificate No : 04123GHG0034



APPENDIX TO THE GREENHOUSE GAS VERIFICATION STATEMENT

Description of the verification :

CTI verified the inventory of Greenhouse gas emissions in year 2022 of BioFunction, Shanghai BioTech Group according to ISO 14064-1:2018.

Scope :

Food and tobacco production (14)

Objectives :

a) Evaluate whether the GHG declaration meets the requirements of ISO 14064-1:2018

b) Evaluate the consistency and completeness of the GHG inventory report

c) Verify the correctness and reasonableness of the GHG accounting and reporting

d) Evaluate the GHG-related management controls at the organization level

Assurance level :

Reasonable

Materiality threshold :

5%

Intended users :

Stakeholders involved in the business activities

Nature of data and information supported the GHG statement :

Historical facts

GHGs included :

■CO₂ ■CH₄ ■N₂O ■HFCs □PFCs □SF₆ □NF₃

Category 1 Emissions :

820.77 tCO₂e

Category 2 Emissions :

6,524.93 tCO₂e

Total Emissions :

7,346 tCO₂e

CTI

CNAS

中国认可
审定标准
VALIDATION VERIFICATION
CNAS C041-V

CTI Certification Co., LTD.

Zone A 8F CTI Building, No.4 Liu Xian San Road, Xin'an Street, Bao'an District, Shenzhen, China



General manager

Certificate No : 04123GHG0034



GREENHOUSE GAS VERIFICATION STATEMENT

The inventory of Greenhouse gas emissions in year 2022 of

BioFunction, Shanghai BioTech Group

has been verified in accordance with ISO 14064-3:2006 with the materiality and the level of assurance satisfied.

Verification Criteria :

ISO 14064-1:2018

Boundary(ies) :

Verified greenhouse gas statement

The 2022 Greenhouse Gas Inventory Report of BioFunction, Shanghai BioTech Group

Organizational boundaries

All facilities under the operational control approach related to greenhouse gas emissions and removals of BioFunction, Shanghai BioTech Group, includes

Address: No.180, Jin De Rd., Jintan Industrial Park Shanghai, China

Scope of business and activities

Food production, food import and export, wholesale, commission agency (marketing activities) and provide related supporting services, technical consultation, technical services and self-owned technology transfer, wholesale of pre-packaged food (excluding frozen food), general goods warehousing business (including dangerous goods), Technology research and development, technical support and technology transfer in the field of biotechnology (except genetically modified organisms, human stem cells, gene diagnosis and therapy)

Time period

January 1, 2022 - December 31, 2022

GHG Category(ies)

■ Category 1 ■ Category 2 □ Category 3 □ Category 4 □ Category 5 □ Category 6

Total emissions :

7,346 tCO₂e

Type of entity :

Third-party

Issue date :

April 15, 2023

Commissioned by :

BioFunction, Shanghai BioTech Group

Details of the objectives, assurance levels, materiality, intend users of the GHG statement, etc. are given in the appendix to this verification statement of which forms an integral part.

CTI

CNAS

中国认可
审定标准
VALIDATION VERIFICATION
CNAS C041-V

CTI Certification Co., LTD.

Zone A 8F CTI Building, No.4 Liu Xian San Road, Xin'an Street, Bao'an District, Shenzhen, China



General manager

Join & Delight consumer' s life.



Profit
People
Planet

TCI
—
Sustainability
Report

vol. 2022