



02 Corporate Governance

- 2.1 Corporate Governance Framework
- 2.2 Business Integrity and Legal Compliance
- 2.3 Risk Management
- 2.4 Data Security and Privacy Protection
- 2.5 Intellectual Property Management
- 2.6 Sustainable Supply Chain Management

Achievement Highlights

3 female directors **1** US director

100% attendance at Audit Committee and Numeration Committee meetings

Introduced Electronic Lab Note
ELN system

ISO 27001
Information Management obtained

Regularly monitored
similar trademarks around the globe

66 hours
of platform incorporation and operation training for intellectual property rights cloud management platform

242 valid patents **173** valid trademarks

+148 new suppliers/contractors, including 99 local suppliers

PharmaEssentia strives to improve its corporate governance mechanisms and pursue sustainable operations. We continue to strengthen Board functions and governance structures, and actively optimize risk controls to prevent negative impacts from affecting corporate operations. We also attach great importance to information security and protection of personal information, and work to maintain corporate information security and personal information of patients. We actively protect drug patents and trademarks through comprehensive management of global intellectual property management, ensuring full and effective legal protections for our drugs around the world, and also implement sound supply chain management mechanisms by managing policy documents, appraisals, risk assessments, and other measures. We work with our suppliers to ensure that there are no interruptions in our supply chain, and we hope to strengthen sustainability concepts along with our supply chain partners to exert positive influence on society, the economy, and the environment to enhance our corporate resilience and brand image as we jointly build stable business models and create outstanding operational achievements.



Main Stakeholders

- Patients
- Employees
- Medical Personnel
- Commissioned Research/Experiment Units
- Shareholders and Investors
- Suppliers and Business Partners
- Local Communities
- Government and Competent Authorities
- Media
- NPOs/NGOs

2.1 Corporate Governance Framework

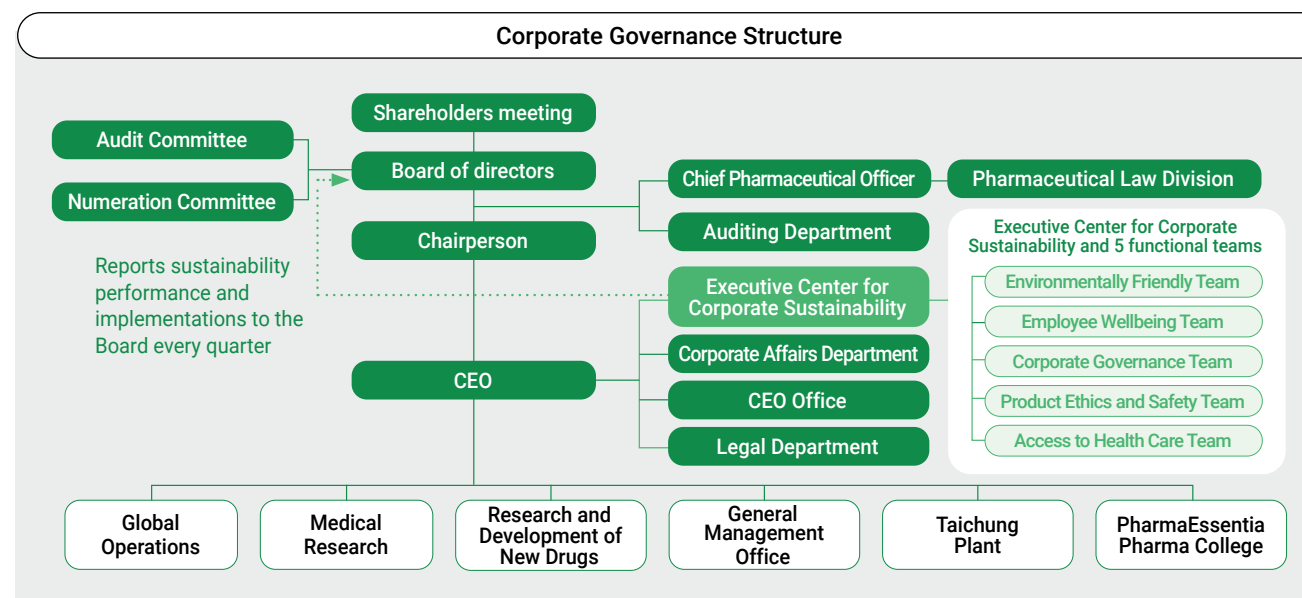
► Director Election and Responsibilities GRI 2-9 GRI 2-10

The Board of Directors is the highest governance unit at PharmaEssentia and adopts a single-track model with each term lasting for 3 years. Board directors are nominated and elected in accordance with the [Regulations Governing Director Elections](#), which incorporate shareholder interests, diversity, independence, and director management capabilities.

The current Board directors were elected at the shareholders general meeting held on May 27, 2024. Following the election, the number of independent directors was increased from 3 to 4, including one female independent director. The number of independent directors exceeded one-third of all directors on the Board, and consecutive terms of office should not exceed 3 terms. The election was conducted in

accordance with Financial Supervisory Commission requirements to strengthen Board function and independence. The Board was maintained at 11 directors, and the number of female directors increased from 2 to 3. The current Board will remain in office from May 27, 2024 to May 26, 2027. Board responsibilities include formulating corporate sustainability strategies, supervising managers, and playing an important role in responding to company and shareholder needs.

The Audit Committee and Numeration Committee have been established under the Board, and the Executive Center for Corporate Sustainability reports directly to the Chief Executive Officer. Board functions are shown in the image below.



PharmaEssentia and all subsidiaries convene 1 board meeting every quarter. All managers and financial directors are required to be present at board meetings, and audit directors report audit results to the Board. For more information on subsidiary directors, please refer to the information on related enterprises in our [annual report](#).

► Board Meetings in 2024

	PharmaEssentia	Panco Healthcare	PharmaEssentia USA	PharmaEssentia Japan
Number of board meetings	10	5	6	7
Director attendance rates	98%	100%	100%	93.88%

► Board Composition and Diversity GRI 2-9 GRI 2-10 GRI 2-11 GRI 2-15 GRI 405-1

To strengthen corporate governance and promote stable developments in board structure, Paragraph 2, Article 20 of our [“Corporate Governance Best Practice Principles”](#) stipulates that board composition should consider corporate business developments and scale, shares held by major shareholders, and actual operational needs when establishing an appropriate number of directors. Director assessments should encompass a variety of aspects such as basic conditions and values (including gender, age, nationality, culture) as well as professional expertise and skills (such as expertise in law, accounting, industrial knowledge, finance, marketing, and technology).

Board of Directors Responsibilities

The Board directs corporate strategies, supervises managers, and answers to shareholders. All operations and decisions are exercised in accordance with law, the Articles of Incorporation, and resolutions of shareholders meetings. Director candidates are nominated in accordance with related regulations, and are submitted to shareholders meetings for election after being approved by the Board.

In response to corporate business development needs, our Board is composed of experts and scholars with backgrounds in industrial expertise, finance and accounting, management, and law, with at least 1 director possessing skills respectively associated with operational judgment, accounting and analysis, business management, industrial knowledge, climate change responses, and international markets, to effectively supervise management and provide professional guidance.



Diversity of Board Members

PharmaEssentia currently has 11 directors (7 directors and 4 independent directors), aged between 50-83 years old. We have 3 female directors and 3 directors who are concurrently serving as company employees. The average tenure of our directors is 7.91 years. Board members possess rich expertise and professional knowledge in biotechnology, finance, education, and other industries, and possess the knowledge, skills, and literacy required to carry out their duties. One of our directors is a representative from the National Development Fund and works to enhance industrial growth momentum. Of our 4 independent directors, 1 has served for more than 5 years; has experience encompassing industry, government, and academia fields; and has global biotechnology production and manufacturing expertise. We therefore continue to rely on their professional expertise, board supervision capabilities, and professional opinions. Additionally, 1 independent director (Jeffrey R. Williams) is from the US, and specializes in finance and education, so is able to guide the business operations of our US subsidiary. In future, PharmaEssentia plans to ensure that directors of each gender exceed one-third of total directors for continued achievement of board diversity.

Title	Name	Nationality	Gender	Professional Background								Age			Independent Director Tenure			Concurrently Serving as Senior Executive	Family Members Employed at the Company
				Operational judgment capabilities	Accounting/ financial analysis capabilities	Business management capabilities	Crisis handling capabilities	Industrial knowledge	Global market perspectives	Leadership capabilities	Decision- making capabilities	Under 30 years	31-50 years	Above 51 years	1-3 years	4-6 years	7-9 years		
Chairperson	ChingLeou Teng	R.O.C.	Female	✓		✓	✓	✓	✓	✓	✓			✓				✓	
Director	KoChung Lin	R.O.C.	Male	✓		✓	✓	✓	✓	✓	✓			✓				✓	✓
Director	HsuehFang Hsu	R.O.C.	Female	✓		✓	✓		✓	✓	✓			✓					
Director	ChanKou Hwang	R.O.C.	Male	✓		✓	✓	✓	✓	✓	✓			✓				✓	
Director	ChenJung Hsiao	R.O.C.	Male	✓		✓	✓		✓	✓	✓			✓					
Director	ShenYi Lee	R.O.C.	Male	✓				✓	✓		✓			✓					
Director	JinnDer Chang	R.O.C.	Male	✓	✓	✓	✓		✓	✓	✓			✓			✓		
Independent director	JienHeh Tien	R.O.C.	Male	✓		✓	✓	✓	✓	✓	✓			✓		✓			
Independent director	MingChuan Hsieh	R.O.C.	Female	✓		✓	✓		✓	✓	✓			✓	✓				
Independent director	ChingTsun Liu	R.O.C.	Male	✓	✓	✓	✓		✓	✓	✓			✓	✓				
Independent director	Jeffrey R. Williams	US	Male	✓	✓	✓	✓		✓	✓	✓			✓	✓				

Note: The current Board was elected in May 2024, and newly elected directors are shown in the list above

► Functional Committees

Two functional committees, the Audit Committee and the Numeration Committee, have been established under the Board, and these committees are all composed of independent directors. To improve board functions and strengthen management mechanisms, the Numeration Committee hired an external expert (Professor MingChuan Hsieh) to serve as a committee member.

		Audit Committee	Numeration Committee
Responsibilities		Assists directors in supervising accounting, auditing, financial reporting processes; monitoring quality and integrity of financial controls; and managing existing or potential corporate impacts to strengthen internal control mechanisms	Assists the Board in formulating and reviewing performance evaluations for directors, supervisors, and managers, as well as remuneration policies, systems, standards, and structures
Composition	Prior to election in May	Independent Director JienHeh Tien, Independent Director Patrick Y. Yang, Independent Director JinnDer Chang	Independent Director JienHeh Tien, Independent Director Patrick Y. Yang, Independent Director JinnDer Chang, Committee member MingChuan Hsieh
	After election in May	Independent Director JienHeh Tien, Independent Director MingChuan Hsieh, Independent Director ChingTsun Liu, Independent Director Jeffrey R. Williams	Independent Director JienHeh Tien, Independent Director MingChuan Hsieh, Independent Director ChingTsun Liu, Independent Director Jeffrey R. Williams
Meetings in 2024		6	3
Attendance Rate		100%	100%

► Avoiding Conflicts of Interest

GRI 2-11 GRI 2-15

To build solid board governance systems as well as sound supervision and management functions, we established the “[Rules of Procedure for Board of Directors Meetings](#),” “[Principles of Ethical Corporate Management](#),” “[Codes of Ethical Conduct](#),” and other policies, which contain clear stipulations on avoiding conflicts of interest. Directors cannot discuss or vote on meeting items concerning conflicts of interest which may damage corporate interests relating to themselves or the entities which they represent, and cannot exercise voting rights on behalf of other directors. We also require directors and managers to handle their duties objectively and efficiently, and avoid using their positions at the company to obtain improper benefits.

Currently, there have been no conflicts of interest for Board members, and there are no shareholders who hold a controlling stake. Additionally, the company founder and family members hold less than 5% of shares. Government shareholders mainly include the National Development Fund and Yao-Hwa Glass Management Commission, who together hold 7.74% of shares, none of which are preferred shares. For more information on our directors/independent directors, as well as management measures for conflicts of interest, please refer to pages 11-15, 27, and 45 of our [annual report](#).

► Highest Governance Unit and Remuneration Policies for Senior Executives

GRI 2-19 GRI 2-20

Director remuneration adheres to our Articles of Incorporation. If the Company's income before tax for the current year has a balance after the deduction of the amount for compensating accumulated deficits and before the deduction of employee and director compensation, the Company shall allocate no more than 5% for director compensation. Director remuneration is submitted to the Board for approval following determination by the Remuneration Committee based on director participation in and contribution to corporate operations, and referencing domestic and foreign industry standards. The Remuneration Committee formulates director compensation distribution recommendations after considering overall board performance, corporate operational performance, future operations, risk appetite, and director participation in and contribution to corporate operations. Distribution recommendations are approved by more than half of attending directors at board meetings where more than two-thirds of directors are in attendance, following which the approved proposal is reported to the shareholders meeting. Please refer to our [annual report](#) for more information on compensation for directors and senior executives.

To achieve sustainable governance, we linked performance indicators for our chairperson, CEO, and general manager with sustainable development; key performance indicators encompass R&D for innovative new drugs, critical global clinical trials, drug permit applications, global business operations, commercialization and mass production, process efficiency, global supply chains and logistical efficiency, and digital operational systems.

► Annual Total Compensation Ratio for 2024 GRI 2-21

Annual total compensation includes salaries, bonuses, and stock awards. The remuneration for the highest-paid individual (CEO) at PharmaEssentia (Taiwan) and all other employees increased compared to the previous year.

Position	Remuneration (Unit: Thousand TWD)	Annual increase	Compensation ratio
Remuneration for highest-paid individual in the organization (CEO)	12,612	8%	0.87
Median compensation for other employees	936	2%	0.96

► Evaluations of Board Performance GRI 2-18

PharmaEssentia has established the “[Rules for Performance Evaluations of the Board of Directors](#)” and “[Regulations for the Self-Appraisal or Peer Appraisal of the Board of Directors](#)” to regulate board performance evaluation targets and appraisal systems. We conduct at least 1 internal board performance evaluation each year, and commission external professional institutes to conduct annual board performance evaluations once every 3 years.

Internal evaluation

Results of internal Board and director performance evaluations for 2024 were reported to the Board in accordance with law on February 25, 2025. The Board unanimously approved all evaluation results and no suggestions were proposed.

External evaluation

In 2024, we commissioned the Taipei Foundation of Finance to conduct Board performance evaluations for the period from January 1, 2024 to October 11, 2024. The evaluation mainly encompassed 7 aspects and 4 improvement suggestions were proposed. We have already implemented improvements based on these 4 suggestions, began focusing on overseas expansions and recruitment of senior management talent in 2024, and also initiated training for key talent at all levels. We further established functional committees under the Board based on operational needs to enhance corporate governance efficiency.

► 7 Evaluation Aspects

Protection of shareholder interests

Strengthening of board structure and operations

Participation in corporate operations

Improvement of board decision-making quality

Enhancement of information transparency

Internal controls

Promotion of sustainable development

Suggested Improvements

1

Information disclosed in annual reports and on public-facing websites should be detailed and consistent

2

It is recommended that closed-door meetings between independent directors and internal audit directors be organized each year to improve audit capabilities. Independent director suggestions proposed at Audit Committee meetings can be incorporated into annual appraisals to serve as a reference for internal audit directors

3

It is recommended that a dedicated corporate governance officer be established. Additionally, the Executive Center for Corporate Sustainability should be raised to the level of a functional board committee when appropriate to improve corporate governance efficiency

4

It is recommended that training associated with sustainable development regulations and management practices be organized for directors and senior managers as appropriate, and succession plans for directors and senior management should be formulated

Corrective Actions

Our human resources department has formulated clear stipulations detailing senior executive (chairperson, CEO, general manager) duties, scope of management duties, and collaboration mechanisms to serve as a basis for corporate governance and internal management. We strive to ensure that related information (including a detailed organizational structure) is appropriately and fully disclosed in our annual reports and public-facing websites

We organized the first closed-door meeting between our independent directors and the internal audit director on February 25, 2025, and plan to organize regular communication meetings each year in accordance with this recommendation to strengthen corporate governance and internal control mechanisms. We will consider incorporating independent director suggestions proposed at Audit Committee meetings into annual appraisals starting from the next year to serve as a reference for internal audit directors

Our human resources department will decide whether to establish dedicated personnel to manage corporate governance matters based on governance needs, business developments, and future growth needs. We will also conduct detailed assessments to determine whether the Executive Center for Corporate Sustainability should be raised to the level of a functional board committee based on corporate operations, sustainable development targets, and board needs, as well as formulate subsequent plans associated with related duties and resource deployments

Related courses are currently organized by the auditing department in accordance with chairperson suggestions as well as company and board needs to improve the professional knowledge and practical application capabilities of our board members and senior executives. Successor plans are assessed by our human resources department in accordance with future corporate development needs and talent reserve conditions, following which successor selection plans are formulated to ensure stability and continued development of corporate leadership

► Strengthen Board Knowledge

GRI 2-17

PharmaEssentia offers directors diverse educational courses to strengthen board functions, and provides written information and oral reports on related businesses and operations to new directors. In 2024, the training hours for all 11 directors complied with regulations. There were a total of 4 training sessions and total training time was 132 person-hours. The courses included:

Course Topic	Number of Sessions	Training Person-Hours	Course Content
Global management strategies and multinational operations	1	33	In response to continued growth in global Group operations, we continue to organize related courses for all directors so they can gain a better understanding of strategic adjustments, risk management, and response measures in global operations. This enables them to effectively face rapidly changing global business environments, thereby achieving sustainable management and stable growth
A look at fast-growing companies from the perspective of century-old enterprises	1	33	Use operational strategies, crisis management, and corporate governance information from century-old enterprises to improve routine corporate operations and future development strategies
Observations on cross-strait political and economic risks under US-Sino rivalries	1	33	Enhance understanding and planning for future management and development at Chinese subsidiary
Corporate responses to global changes	1	33	Explain how international affairs affect the company's global development strategies

► Participation in Public Associations GRI 2-28

PharmaEssentia has joined external institutions associated with the biopharmaceutical industry, and is a fee-paying member of all these associations. We hope to promote industrial information exchanges and grasp industry dynamics in real time so we can jointly exert our influence and boost industrial development. Additionally, we also joined external institutions associated with corporate governance to strengthen governance effectiveness and enhance competitiveness.

External Associations	Benefits to PharmaEssentia and the Industry
Taiwan Parenteral Drug Association	This association enables us to communicate and interact with industry, government, and academic units related to the domestic pharmaceutical industry so we can jointly boost Taiwan's pharmaceutical GMP standards and align with international standards
The Allied Association for Science Park Industries	Support from this association and compliance with government policies, initiatives, and communications allows us to jointly pursue stable business developments for the entire science park
Development Center for Biotechnology	We utilize pharmaceutical industry research resources from the Development Center for Biotechnology to improve industry standards and introduce outstanding products
The Hematology Society of Taiwan	Allows us to conduct academic exchanges with other HCPs to improve domestic hematology research standards
Chinese Association for Pharmaceutical Agents	Assist promotion of medical and healthcare policies, and provide recommendations based on actual needs
Taiwan Pharmaceutical Manufacture and Development Association	Brings together industry, government, academic, and research institutes to jointly promote research developments in the biopharmaceutical industry
Taipei Pharmaceutical Business Association	Strengthen communication with the government and align with policies to promote new opportunities in the pharmaceutical industry
Taiwan Research-Based Biopharmaceutical Manufacturers Association	Align with government policies to improve domestic biopharmaceutical innovation & research capabilities and industry profitability
Taiwan Myeloproliferative Neoplasms Association	Enhance public understanding of MPN to enable effective medical support
Taiwan Clinical Research Association	Improve domestic clinical trial standards through experience sharing
Taiwan Bio Industry Organization	Incorporate government and academic units for joint promotion of bio-industries
Institute for Biotechnology and Medicine Industry	Promote biopharmaceutical upgrading strategies to enhance public health and well-being
Taiwan Corporate Governance Association	Improve corporate transparency, promote effective operations, and uphold investor rights

► Management and Communication of Tax Policies

GRI 207-2

GRI 207-3

PharmaEssentia has established a [Tax Policy](#) that strictly adheres to domestic and overseas tax regulations. We ensure information transparency in accordance with regulations to strengthen corporate tax compliance and commitments, and the finance and accounting departments at our headquarters serve as the responsible units for tax management, working with the finance and accounting departments of our subsidiaries to coordinate, plan, and file taxes in accordance with law. Additionally, we actively participate in external engagement involving tax issues to communicate changes in international tax systems and important domestic tax issues through meetings with tax consultants and tax authorities so we can jointly create a sound tax environment.



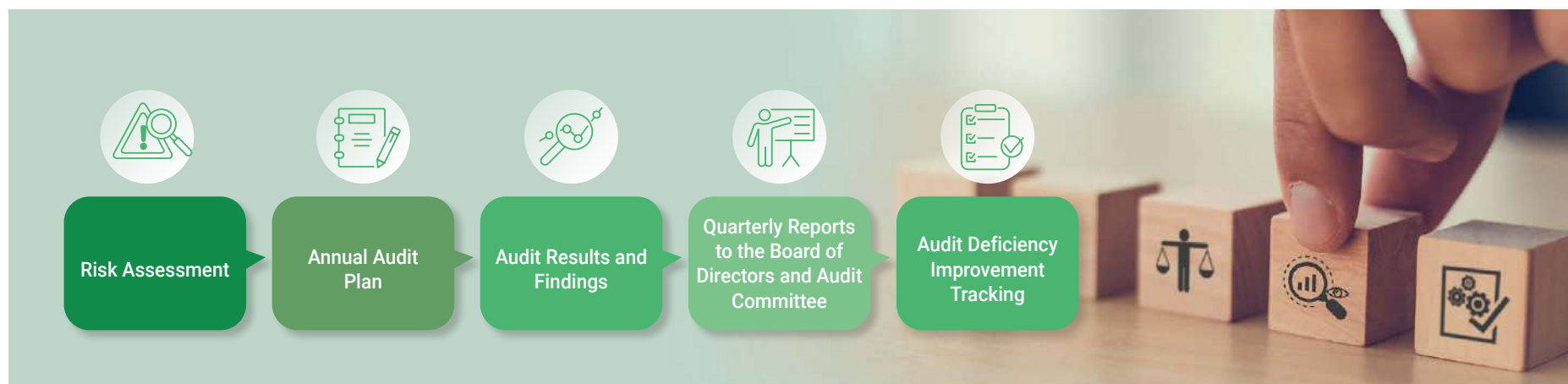
PharmaEssentia pledges to adhere to the following tax management guidelines while ensuring that routine operations adhere to regulations to lower tax risks, optimize post-tax operational performance, and uphold shareholder interests:

1. All operations are handled in accordance with related tax laws and regulations
2. Transactions between related enterprises adhere to conventional trading principles and comply with the internationally recognized transfer pricing guidelines issued by the OECD
3. Enhance information transparency of financial reports, and ensure that tax disclosures are handled in accordance with related rules and regulatory requirements
4. Do not conduct transactions for the sole purpose of avoiding tax
5. Establish mutually respecting relationships with tax authorities based on mutual trust and information transparency
6. All important corporate decisions consider impacts from taxes
7. Analyze operational environments and use management mechanisms to assess tax risks
8. Strengthen professional tax capabilities through continued talent cultivation

Income tax reconciliation table for past three years

(Unit: NT\$'000)	2022	2023	2024
Profit Before Tax from Continuing Operations	(1,841,871)	(986,934)	2,994,652
Income Tax Calculated at the Parent Company's Statutory Rate	(368,374)	(197,388)	598,929
Tax Impact of Deferred Tax Assets/Liabilities	(68,107)	(168,670)	(1,057,414)
Other	(30,580)	2,959	487,634
Total Income Tax Expense Recognized in Profits or Losses	(467,061)	(363,099)	29,149

► Internal Controls and Internal Audits



We have established an auditing department under the Board to implement ethical management, fulfill supervisory responsibilities, and further optimize internal control and audit processes. The auditing department is headed by a chief auditor who supervises 1 to 2 auditors. The appointment and dismissal of the chief auditor must be approved by the Audit Committee and passed by the Board. The auditing department formulates annual audit plans each year based on current or potential corporate risk issues, and conducts internal audits through general audits, project audits, and subsidiary supervision operations. The chief auditor reports on [audit implementations](#) to the Audit Committee and the Board every quarter, and organizes regular independent communications between internal auditors and independent directors to strengthen director supervisor of corporate audits. We also continue to track and re-examine all deficiencies discovered during audits to confirm that related units have adopted timely and appropriate improvement measures. In 2024, the auditing department completed a total of 56 audit reports and discovered no major deficiencies.

The auditing department also reviews appropriateness and implementations of internal controls based on our "Internal Audit System" through audits encompassing all corporate financial, business, operational processes, as well as subsidiaries that comply with regulatory requirements.

Audit management of subsidiaries:



2.2 Business Integrity and Legal Compliance GRI 2-23

PharmaEssentia has designated the general management office as the sole responsible unit (hereinafter "dedicated unit") under the Board and has also provided sufficient resources and appropriate personnel to amend, implement, and interpret the Procedures for Ethical Management and Guidelines for Conduct; provide advisory services; record and file reports; and conduct other monitoring and implementation procedures. The dedicated unit is responsible for the following matters and makes regular reports to the Board each year (at least one report a year):

A Assisting in incorporating ethics and moral values into the Company's business strategy and adopting appropriate prevention measures against corruption and malfeasance to ensure ethical management in compliance with the requirements of laws and regulations

B Analyzing and assessing on a regular basis the risk of involvement in unethical conduct within the business scope, accordingly adopting programs to prevent unethical conduct, and setting out in each program the standard operating procedures and conduct guidelines with respect to the Company's operations and business

C Planning the internal organization, structure, and allocation of responsibilities and setting up check-and-balance mechanisms for mutual supervision of business activities within the business scope which are possibly at a higher risk for unethical conduct

D Promoting and coordinating awareness and educational activities with respect to ethics policies

E Developing a whistle-blowing system and ensuring its operating effectiveness

F Assisting the board of directors and management in auditing and assessing whether the prevention measures taken for the purpose of implementing ethical management are operating effectively, and preparing reports on regular assessment of compliance with ethical management in operating procedures

G Preparing and retaining properly documented information such as ethical management policies and compliance statements, situations concerning the performance of undertakings and enforcement, and so on

► Ethical Management and Business Codes of Conduct

PharmaEssentia established the Principles of Ethical Corporate Management, Procedures for Ethical Management and Guidelines for Conduct, Codes of Ethical Conduct, and other regulations. These regulations took effect following board approval, and we require the Board and all employees to abide by these rules and regulations to ensure that no unethical incidents occur during operations. PharmaEssentia Japan has established the “Corporate Code of Conduct” to regulate routine employee work behaviors, and has also compiled ethical management and business codes of conduct into a work manual that employees can refer to at any time. Related corporate governance procedures and regulations can be [downloaded](#) from our official website.

Our Principles of Ethical Corporate Management contain clear anti-corruption and anti-bribery stipulations, and we regularly educate our employees. In 2024, we required all employees and directors in Taiwan to participate in education and training associated with global codes of conduct encompassing anti-corruption, anti-bribery, and anti-trust/anti-competition matters. Additionally, we also hosted an “Internal material information and prevention of insider trading regulations” course attended by 215 participants, with total training hours amounting to 645 hours. PharmaEssentia USA also disseminated information on regulations associated with business integrity, business conduct, and internal material information protection through code of conduct training and employee manuals. A total of 168 employees participated in training. In 2024, we conducted internal control assessments on anti-corruption and associated risks, and did not discover any anti-competition, anti-trust, and monopoly incidents or conduct. Our “[Rules of Procedure for Board of Directors Meetings](#)” contains clear stipulations on how the board should handle conflicts of interest, and we are also planning to establish a Legal Compliance Committee and subordinate ethical management supervision units.

All employees are required to comply with our 7 major business conduct and ethics rules, which stipulate that our personnel should uphold principles of fairness and justice when carrying out their duties, and shall not profit from their positions, or manipulate or misuse information obtained through their roles. Our human resource department has also formulated specific measures for reporting illegal conduct (including corruption) of internal and external personnel. New employees receive training on professional ethics as soon as they join the company. In 2024, PharmaEssentia was not involved in any incidents associated with ethical management and corporate code of conduct violations, and we did not receive any associated grievance reports.



► Legal Compliance GRI 2-23

The biopharmaceutical industry is a highly regulated industry. To ensure that PharmaEssentia adheres to global regulations at all stages of drug lifecycles, we referenced domestic and overseas policy and regulation trends to formulate legal compliance strategies and management regulations for global operations. We established a total of 40 regulations, including the "Corporate Governance Code," "Principles of Ethical Corporate Management," "Codes of Ethical Conduct," "Procedures for Ethical Management and Guidelines for Conduct," "Sustainable Development Best Practice Principles," "Operating Procedures for Handling Material Nonpublic Information and Preventing Insider Trading," "Regulations Governing Management and Utilization of Intellectual Property Rights," and "Regulations Governing Management of Litigation Cases/Major Disputes." PharmaEssentia has established a regulatory affairs department, auditing department, corporate governance officer, legal department, human resources department, and other functional departments. We require our colleagues in all associated departments and our suppliers to abide by the aforementioned regulations.

MLR (Medical, Legal, and Regulatory) Committee

MLR is an interdepartmental committee composed of members from the medical affairs, legal, regulatory, and business departments. The MLR Committee is responsible for reviewing and approving all external promotions and communication documents that may be considered drug promotions or product labels by the US FDA, to ensure that the information is scientifically accurate, not misleading, and complies with all internal policies and applicable regulations. The Committee revisits marketing authorizations and adjusts decisions based on the latest laws/regulations and market needs. We sometimes commission external professional institutes to assist with reviewing processes, but supervision and approval procedures are conducted by internal experienced professionals.

In 2024, the Committee recruited new legal/regulatory reviewers, who were selected based on their academic backgrounds and expertise to ensure that they could provide necessary technical and legal recommendations. We often recruit personnel who have served as MLR Committee reviewers at other biotechnology companies so they can use their past experiences as a basis for risk comparisons, enabling effective review and approval while reducing corporate risks.

► Summary of Legal Violations GRI 2-27

In 2023, our Zhubei Plant construction site submitted a plan for reducing runoff wastewater. During an on-site inspection, the Department of Environmental Protection discovered that the runoff wastewater treatment facilities were not consistent with the original plan, which constituted a violation of the Water Pollution Control Act, incurring a fine of NT\$70,000 in 2024. We and the construction company have already taken measures to address this violation:

Construction company: According to our contract, the construction company is responsible for environmental protection matters during the construction period. In response to the discovered violation, the construction company has already submitted a new runoff wastewater reduction plan, which has been reviewed and approved by the Department of Environmental Protection, ensuring that the procedures comply with related regulatory requirements.

PharmaEssentia: We have directed the construction company to strengthen on-site management measures, increase inspection frequencies, and ensure that wastewater treatment facilities are operating normally. We also strengthened personnel training, established internal monitoring and management mechanisms, and comprehensively strengthened compliance and management capabilities.

Note: All PharmaEssentia sites strictly adhere to regulations set by competent authorities. We have established related internal operational regulations and codes, and we define any legal violation as a "major regulatory violation" which requires immediate improvement and establishment of future prevention measures

40+

domestic and overseas
policy and regulation
trends to formulate legal
compliance strategies and
management regulations
for global operations



► Legal Compliance and Specific Actions in Product Lifecycles

SASB HC-BP-270a.1

SASB HC-BP-270a.2



2.3 Risk Management

Risk Governance Unit

The board of directors is the highest supervision and decision-making unit for risk management, and is responsible for approving risk management targets and policies, and for ensuring effective operations of management mechanisms. The Audit Committee, auditing department, and corporate governance officer has been established under the Board to assist supervision of current and potential risk issues, strengthening internal monitoring mechanisms while reducing negative impacts and financial losses.

Risk Management Guidelines and Implementations

We have established internal risk management policies, procedures, and internal control systems for appropriate management of risk issues, impacts, and corresponding material topics in accordance with related regulations. Every year, the board approves corporate risk management targets and policies, and also assigns senior managers to oversee promotion and execution of various issues, and ensure that risk management mechanisms are operating effectively through regular monitoring.

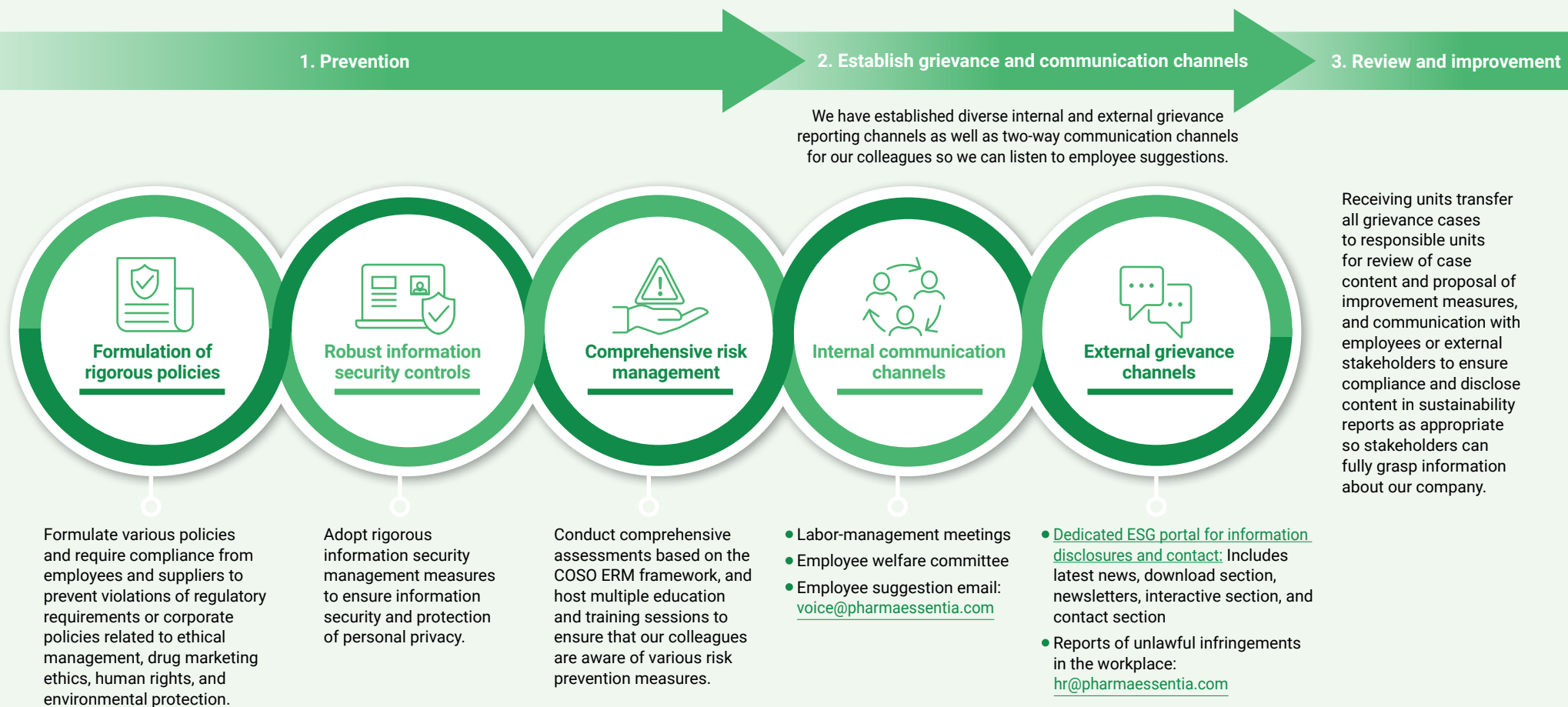
► Risk Issues and Responses

PharmaEssentia referenced the 2018 COSO Enterprise Risk Management guidelines and biopharmaceutical industrial characteristics and requirements to classify risks into 9 categories, and adopted response measures for different risks to reduce corporate impacts.

Risk categories	Risk causes	Response measures
Industrial risks	New drug R&D is a high-risk endeavor with low success rates, high investments, and high levels of uncertainty during product R&D processes	BESREMI has obtained marketing authorizations and we are continuing to use our PEGylation technology platform to develop other long-acting protein-based drugs, as well as expand into new indications to maximize R&D investment benefits and reduce market risks from single products
Market risks	New drug R&D is time-consuming and has a low success rate, and products that obtain marketing authorization still need to compete with existing market products or other alternative products	- Independently develop new drugs and use medicines for rare diseases (orphan drugs) as a foundation for development; approval processes for products that have obtained orphan drug status are often fast-tracked, and these products usually enjoy freedom in pricing, monopoly markets, and other preferential conditions after receiving marketing authorization - Collaborate with external companies on developing new products with good potential to expand product diversification
R&D risks	Risks include underperformance in clinical progress or trial outcomes, being outpaced by competitors on R&D progress, challenges in cultivating and retaining research talent, and over-reliance on CROs and CMOs for clinical trials	- Simultaneously develop new drugs for different indications to disperse the risks from only developing a single drug - Recruit talents with backgrounds in the biotechnology industry to create and maintain sound R&D environments and employee welfare, and provide employees with training opportunities to retain talent - Choose trial institutes that offer optimal collaboration conditions and develop long-term collaborative relations
Financial risks	Risks from exchanges rates, rising prices caused by inflation, R&D investments, and operating capital requirements during all corporate financial activities, which may incur additional costs for the company	Our finance department is the dedicated unit responsible for closely interacting with foreign banks; tracking exchange rates, market information, and future trends; and rigorously controlling capital utilization, budget implementations, and other management processes for all business units
Legal risks	Risks from international arbitration and litigation cases, which may lead to reputational damage or financial losses	Commissioned a professional legal team which is responsible for handling international arbitration and litigation cases to maintain corporate and shareholder interests, and to maximize benefits
Policy risks	Risks from geopolitical conditions or changes in national policies	- Closely monitor international political and economic information and news as well as supply chain impacts that could be caused by international trade conflicts to quickly adjust overall business strategies and ensure supply chain stability - Established a dedicated regulatory department to keep abreast of policy changes associated with new drug applications, health insurance, and reimbursement policies in various countries
Technological change risks	Risks from information security, digital transformation, talent capabilities, supply chain disruptions, or regulatory changes which may impact corporate operations	Established the information security management team, which is responsible for information security executions, governance, and supervision, and continued strengthening in management of information security to comprehensively enhance information security awareness, as well as to protect trade secrets and stakeholder interests
Environmental risks	Climate change, natural disasters, infectious diseases, and other uncontrollable external risks	- Introduced the TCFD framework to strengthen climate risk management. Our Taichung Plant has passed ISO 14064-1 verifications and implemented multiple energy and carbon reduction measures to mitigate climate change impacts - In light of lessons learned from the coronavirus pandemic, we have reinforced supply chain management (SCM) practices by securing safety stock and identifying alternative material sources to reduce supply shortage risks
Other risks	Other risks not listed above which may cause the company to suffer major losses	Adopt corresponding emergency measures based on the severity of each situation

► Countermeasures for Risks and Impacts GRI 2-25 GRI 2-26

PharmaEssentia responds to negative impacts from risks using three steps: Prevention, grievance reporting, and review and improvement. We established complete remedial processes for negative impacts to effectively respond to potential or emergency impacts.



2.4 Data Security and Privacy Protection

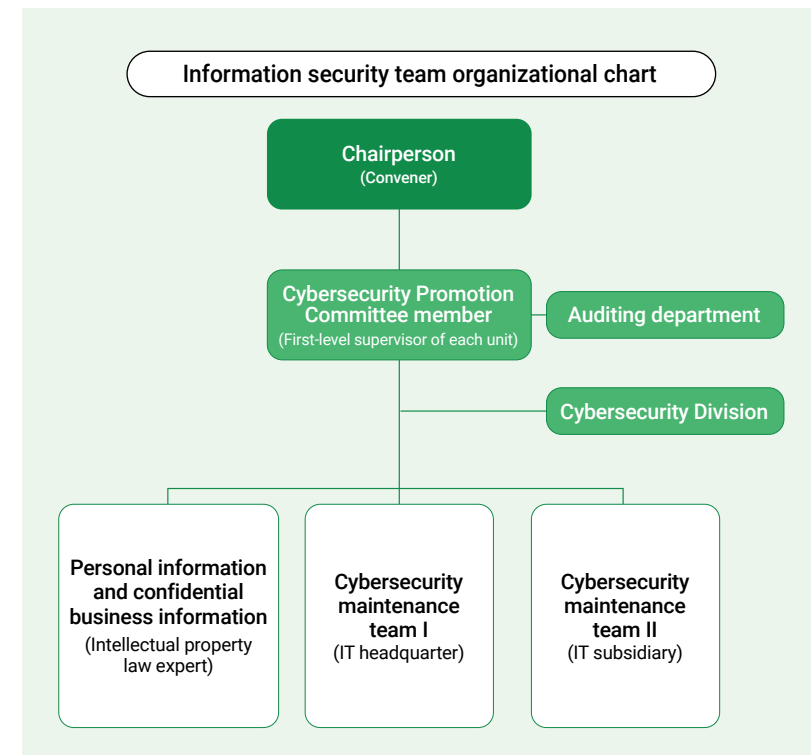
► Information Security Management System

To enhance information security defenses and management mechanisms, PharmaEssentia continually amends information and communication security policies and regulations in accordance with amendments made to the “Regulations Governing Establishment of Internal Control Systems by Public Companies” and “Information and Communication Security Management Guidelines for TWSE/TPEX Listed Companies.” In 2022, we announced on our official website that our Board had approved the establishment of the “Information Security Management Procedures” and an information security promotion team responsible for forming information and communication security promotion organizations, formulating information security policies, organizing personnel training, identifying core businesses, surveying and developing information and communication systems, conducting information security risk assessments, implementing information and communication security protection and control measures, reporting and responding to information and communication security incidents, and continuing to improve information and communication security management. The information security officer reports annually to the Board; the latest information and communication security report was presented in February 2025 and explained recent information security management implementations and corrective actions.

► Information Security Management Team

To enable effective promotion of information security tasks, we have established the information security management team (hereinafter the “information security team”) to coordinate information security promotions, governance, and supervision. The information security team is convened by a senior executive designated by the CEO or general manager. Information security team members include the general management division information director, the CEO office biostatistics director, the general management division intellectual property director, the legal affairs director, the executive center for corporate sustainability director, the corporate governance officer, the QA/QC/PROD/engineering director, and the general management division human resources directors; auditing department personnel are also in attendance at team meetings. The team convener appoints executives to serve as team members based on actual needs. The following promotion teams have been set up under the information security team by the information security team convener, and are responsible for coordination, planning, and execution of various tasks.

- 1 Personal information protection and trade secrets management promotion team:** Responsible for establishing personal information protection systems, implementing and supervising personal information protection measures, and coordinating management of corporate trade secrets. The promotion team oversees all information associated with internal employees, external vendors, CRO clinical data, and data from Panco
- 2 Information system security maintenance team:** Responsible for planning and implementing security management for information systems
- 3 Auditing department:** Responsible for auditing information security processes



PharmaEssentia headquarters introduced the ISO 27001:2022 Information Security Management System in October 2023, passed audit inspections in April 2024, and received official certification on July 9. Implementing ISO 27001 allowed us to move from passive to active management of information security. We established a sound information security management framework, strengthened our information security defense capabilities, and not only adhered to regulatory requirements, but also increased our international competitiveness and enhanced employee information security awareness. In future, we hope to fill information security personnel gaps or obtain assistance from external information security consultants in the short term, and consider SASE, SIEM, and SOC deployments as long-term targets to strengthen overall corporate information security defense capabilities.



ISO27001 certification

► Information Security Training

To enhance employee information security awareness, we hosted 2 information security training sessions and 2 ISO27001 training sessions in 2024 which were attended by 289 participants. Total training hours amounted to 334 hours. We also cultivated 9 employees who participated in ISO/IEC 27001:2022 lead auditor courses. All of these employees underwent 6 hours of training and have received lead auditor certificates. We plan to initiate training at our Taiwan headquarters and gradually expand training to our subsidiaries in the US and Japan. We also appointed an IT department manager to participate in an information security seminar covering a range of topics to better understand current information security trends and response measures.

Although we have not yet introduced the ISO 27001 Information Security Management System at our US subsidiary, we have already commenced information security training courses and require all employees to complete monthly cybersecurity training courses. In 2024, a total of 157 people participated in these courses and total training hours amounted to 593 hours. The IT department conducts monthly phishing simulation drills on PharmaEssentia USA and PIRC employees to enhance employee information security awareness.

Course Title	Course Content	Sessions	Number of Participants	Training Hours/ Person	Total Training Hours
Information Security Training	1. Dissemination of information security policies 2. Social engineering and anti-hacking practice	2	280	1	280
ISO 27001:2022 education and training	1. ISMS internal audit training 2. ISMS procedural training	2	9	6	54
Information security seminars	1. CIO Taiwan smart medicine seminar 2. Menlo Security: A new generation of enterprise browsers 3. CIO Taiwan: Enterprise clouds (key applications for managing multiple clouds) 4. Enterprise AI knowledge management systems 5. AI Leading to the Future seminar organized by Acer e-Enabling Business 6. CIO digital transformation and AI innovations	6	1	40.5	40.5

► Personal Information Protection GRI 418-1

Information security and privacy protection targets not only include internal employees, but also HCPs, medical institutes, contract organizations, and clinical trial patients. In terms of patient privacy and security, PharmaEssentia CROs and medical personnel participating in clinical trials at hospitals rigorously adhere to privacy protection policies and comply with domestic and overseas regulatory requirements such as the EU General Data Protection Regulation (GDPR), Good Clinical Practice (GCP), Declaration of Helsinki, Human Research Ethics Policy Guidelines, and Medical Care Act as part of our responsibilities to personal information protection. PharmaEssentia and all global subsidiaries did not incur any grievances involving employee or customer information protection and privacy rights, or any incidents associated with loss of customer information.

2.5 Intellectual Property Management

PharmaEssentia established the “Intellectual Property Management and Utilization Procedures” to regulate the acquisition, protection, maintenance, and utilization of corporate intellectual property rights. Each year, the intellectual property management department at headquarters regularly reports on implementations for the previous year’s intellectual property management plan as well as the plan for the upcoming year to the Board. Implementations for the 2024 intellectual property management plan and the new intellectual property management plan for 2025 were reported to the Board on February 25, 2025. The Board helped to enhance corporate intellectual property strategies and protections, and effectively supervised protection measures for corporate intellectual property rights protections.

PharmaEssentia has gradually become an international pharmaceutical company, and therefore our frameworks and systems for controlling risks must also be

continuously improved. In 2024, we inventoried, reviewed, and updated longstanding R&D internal controls relating to intellectual property rights. These amendments were submitted to the Board for approval in early 2025 to comply with intellectual property risk control requirements for listed pharmaceutical companies.

The intellectual property department at PharmaEssentia headquarters has formulated a set of Group-wide intellectual property rights management policies which are being implemented at headquarters as well as all domestic and foreign subsidiaries. In 2024, we incurred no violations of intellectual property rights.

► Patent Positioning and Strategies

Decisions on whether to file patent applications for R&D results, as well as the regions/countries to file patents,

all adhere to PharmaEssentia procedures and are handled on a case-by-case basis. As there are differences in indications/patient types/market conditions for Ropeg and other new drugs being developed by PharmaEssentia, patent application requirements and application regions also differ. Apart from R&D highlights and output quality, we also consider various factors associated with marketing, manufacturing, local health insurance reimbursement conditions, accessibility, and regulatory requirements before making decisions on whether to apply for patents, as well as depth and breadth of patent strategies.

The intellectual property department at PharmaEssentia headquarters coordinates local access to medicine needs of all subsidiaries, and provides Group-level consultations and recommendations on supporting measures (such as authorizing drug imports and exports, prescriptions, and usage rights to specific regions as a patent holder to support necessary medical actions) so that the Group global operations team can appropriately plan feasible access to medicine solutions for all locales.

0 violations

In 2024, we incurred
no violations of intellectual
property rights



► PharmaEssentia Intellectual Property Rights Strategies

1. Continue to apply for and obtain invention patents in various countries

PharmaEssentia lays great emphasis on patent protections and patent management, and also has great respect for global patent protections and intellectual property rights. We protect new drug R&D achievements of R&D based pharmaceutical companies, continue to expand lifecycle protections and impacts of new drug products, and use these as a foundation for entering global markets.

2. Access to medicine considerations take priority over exercising patent rights for new drugs

We adjust our operational strategies based on patient needs and discrepancies in access to medicine for different locations. Least developed countries may be unable to afford or access new drugs due to intellectual property rights protections. Therefore, when exercising our drug patent rights, we not only consider the prevalence of said indication, local economic standards, and local governmental regulatory policies for new drugs, but also actual conditions of relatively low income countries and least developed countries to fulfill medication needs for local patients from the perspective of intellectual property rights. When we have to decide between enforcing patent rights for new drugs and humanitarian aid, we prioritize medical needs and offer accessible channels for obtaining medication and affordable prices to ensure that patients can obtain patented new drugs. In 2024, PharmaEssentia did not apply for or enforce patents in any low income countries or least developed countries.

3. Protection of intellectual property rights

As an international R&D based pharmaceutical company, PharmaEssentia has adopted many protection measures for core intellectual property rights since before the company was publicly listed. In terms of internal controls, we not only implement intellectual property rights procedures during R&D cycles, but also established the "Intellectual Property Management and Utilization Procedures" to regulate the acquisition, protection, maintenance, and utilization of intellectual property rights. Our R&D projects have gradually reached maturity and our products have gradually obtained marketing authorizations in different countries. Therefore, our R&D momentum has continued to expand and we are now facing a multitude of risks. Because of this, we made significant changes to internal controls associated with intellectual property rights procedures for our R&D cycles in 2024, and submitted these changes to the Board for approval in 2025.

To maintain the advantages of our core patent technologies, we adopt product life cycle management strategies to manage our intellectual property rights, and our R&D/manufacturing process and intellectual property teams continue to optimize existing patent technologies and explore related patents. We publicly disclose product optimization achievements as appropriate while extending protections for our product technologies as part of our contributions to society.

We have gradually obtained marketing authorizations around the globe and our commercial activities have also expanded, so there is a much higher risk of trademark infringements. When well-known trademarks are encroached upon by similar trademarks, the corporate brand value represented by the well-known trademark also decreases. PharmaEssentia expanded the functions of the intellectual property department and successfully implemented regular monitoring for similar trademarks around the globe to ensure management of global enterprises and brands. In 2024, shortly after implementing trademark monitoring measures, we successfully intercepted a trademark announcement in the US for a product with a name and indication that was very similar to Ropeg, which would have weakened our globally registered trademark if it had been registered and used on a similar product. Following advice from intellectual property attorneys, we filed a trademark opposition in the US within specified time limits as it was similar to our product and trademark. We effectively blocked the registration of said trademark and proved that global trademark monitoring measures provided solid intellectual property protections for our company.

► Specific Global Intellectual Property Protection Actions

PharmaEssentia

PharmaEssentia has conducted a comprehensive review and inventory of primary names, graphics and logos, and respective usage contexts for products and services representing the company, as well as respective international classes. Trademarks and logos that are being used commercially but which have not been registered were submitted in batches for trademark registration in Taiwan for full protection of trademarks registered for new drugs and to enhance the international brand image of new pharmaceutical companies in Taiwan.

PharmaEssentia USA

Trademarks for drug names were registered and protected prior to obtaining FDA marketing authorizations, and we gradually unveiled enterprise and product trademarks in various media channels after receiving marketing authorization and commenced management of our corporate brand. As the US adopts the first-to-use principle, we have to use our trademarks as soon as possible and deploy resources for registration of US trademarks as needed. All of our trademarks have been used for many years, and we will continue to register other representative trademarks to strengthen trademark protections for PharmaEssentia USA.

PharmaEssentia Japan

Regular monitoring reports are generated manually for Japanese trademarks that are not presented in English. We have not discovered any similar trademarks since we commenced monitoring measures.

► Intellectual Property Education and Training

Since PharmaEssentia expanded the general management division intellectual property department, internal US patent attorneys have conducted comprehensive internal intellectual property training each year to enhance patent knowledge in domestic and overseas R&D and intellectual property team personnel within the Group. In future, we plan to submit R&D results to the intellectual property department via a paper-free cloud platform. Therefore, in 2024, we conducted training courses on intellectual property management platform operations so the R&D department could submit R&D results in a timely manner. In order to align with global commercial developments for core products, we assessed the needs of PharmaEssentia headquarters and all subsidiaries, and conducted internal intellectual property training covering trademark registration, copyrights, and in-depth information on trade secrets and other intellectual properties. We are also planning regular promotion of our international intellectual property policies to all subsidiaries within the Group, to ensure that all personnel comply with related regulations.

Employee intellectual property education and training sessions conducted in 2024 were as follows:

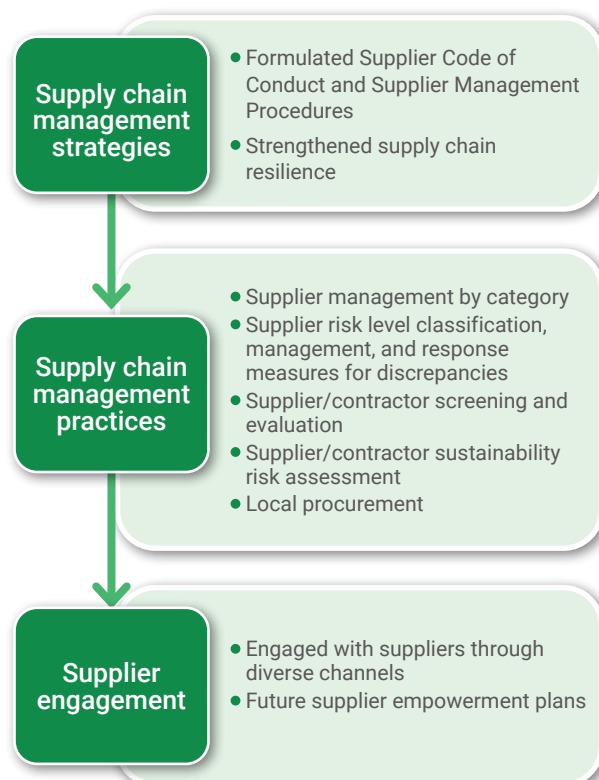
Course title	Course format	Speakers	Targets	Participation hours per person
Progressiveness in patent law	Physical	Practicing US patent attorney	42 R&D, manufacturing process, and intellectual property personnel	1 hour
Drafting patent manuals	Physical (recorded content was made available online after the course)	PharmaEssentia US patent attorney	3 intellectual property department personnel from headquarters	2 hours
Introduction to "patent dance" in US patent law	Physical	PharmaEssentia US patent attorney	3 intellectual property department personnel from headquarters	2 hours
Training series introducing intellectual property management cloud platform	Online (rewatchable courses)	Intellectual property management cloud platform engineer and PM	3 intellectual property department personnel from headquarters	66 hours

► Patents and Trademarks

	Number of patents	Number of trademarks
Obtained (As of year-end 2024)	Cumulative number of valid patents: 242 in various countries and regions	Cumulative number of valid trademarks: 171 trademark certificates from various countries
Pending applications	23	17

2.6 Sustainable Supply Chain Management

PharmaEssentia strengthens supply chain management through three aspects, working with suppliers/contractors to embody and practice sustainability principles, thereby creating long-term and stable value for the pharmaceutical industry and patients.



► 1. Supply Chain Management Strategies

PharmaEssentia formulated the “[Group Supplier Code of Conduct](#),” which focuses on labor rights, workplace safety and health, environmental sustainability, and business ethics. The Group Supplier Code of Conduct was signed by our chairperson and published on our website, and we hope it can serve as an industry benchmark. Additionally, in order to make strides toward our paper-free goals, we actively introduced digital systems in 2024 for routine business requisition, procurement, and verification procedures that require large amounts of paper. PharmaEssentia also launched a globally synchronized digital procurement platform. As introducing digital systems requires large amounts of manpower and time, as well as rebuilding of operational processes, we postponed our “supplier code of conduct signing procedures” to prevent this from becoming a mere formality, and we plan to require our suppliers to sign the Supplier Code of Conduct in future to strengthen management of supplier responsibilities.

The quality assurance department formulated the “Outsourcing Activities Policy” and “Supplier Management Procedures” to serve as standard procedures and processes for approving suppliers and outsourcing service contractors, enabling strict monitoring of raw materials, production supplies, device/equipment supplier screening, assessment, and approval, ensur-

ing that raw materials and equipment provided by suppliers comply with our quality, delivery time, and GMP requirements. The “Supplier Management Procedures” were amended twice in 2024 to add regulations and details on supplier categories, optimizing our management strategies. We also sign “Quality agreements” with our outsourcing service contractors to ensure that both parties understand product and quality requirements. In 2024, 55 vendors were required to sign quality agreements, and we achieved a signing rate of 98.18%. One supplier was a new vendor and their quality agreement is still pending; the remaining 54 vendors have signed their quality agreements.

In order to work with our supplier partners in jointly achieving moral and sustainable development goals, our procurement department adopted several proactive measures to promote and execute the Supplier Code of Conduct. Firstly, our procurement department added a link to the Supplier Code of Conduct in the signature line for all emails, inviting suppliers to jointly fulfill corporate social responsibilities during routine business transactions and when sending procurement orders. We also require suppliers to comply with the PharmaEssentia Code of Conduct as well as local laws and regulations, thereby ensuring transparency and adherence to ethical standards for both parties during collaborations.

Additionally, the procurement department has added clauses on corporate social responsibilities encompassing ethical management, labor rights, occupational health and safety, environmental sustainability, and other issues in all procurement contracts. We clearly stipulate that collaborating vendors should comply with ethical management principles as well as adhere to fundamental labor rights principles and local labor laws, and we strive to build healthy, safe, and comfortable work environments. Collaborating vendors also need to comply with related environmental regulations and establish specific environmental protection, energy conservation, and carbon reduction management measures. To strengthen policy implementations, our contract clauses clearly stipulate: "If collaborating vendors fail to correct violations of corporate social responsibilities, or if their actions cause significant environmental or social damage, resulting in harm to PharmaEssentia's corporate reputation or interests, the contract may be terminated or rescinded," emphasizing our determination toward ESG (environment, social, governance) compliance.

Before signing contracts with Japanese equipment manufacturers, PharmaEssentia Japan not only considers cost rationales, vendor credit report, and other corporate operational conditions, but also evaluates whether said vendors are capable of complying with PharmaEssentia Japan bylaws, GMP, and GQP regulations. PharmaEssentia Japan also assesses whether factory environments are suitable for medication preservation, and confirm whether there are appropriate response measures if emergency incidents generate negative quality impacts during production processes. Final products are ultimately prepared for commercialization (packaged) under strict conditions at factories that adhere to relevant standards.

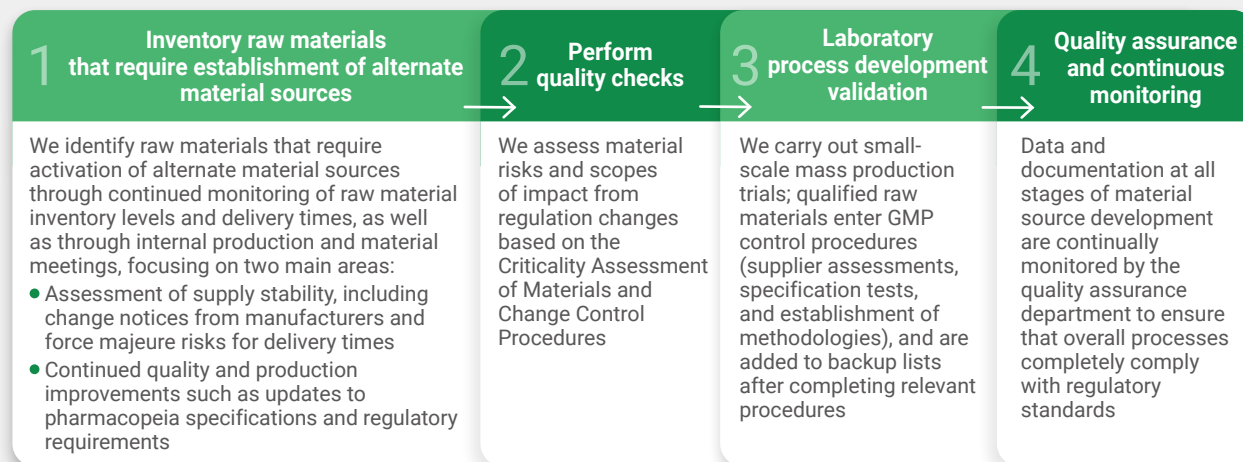
► Supply Chain Resilience

PharmaEssentia strives to strengthen supply chain management and response capabilities, balance cost considerations and supply stability over the long term, and reduce negative supply chain impacts from emergency incidents. In 2024, we investigated inventory conditions of 4 significant high-risk suppliers, requiring them to fill out shipment delivery forms to reduce supply shortage risks.

We implement the following management measures to effectively enhance supply chain resilience:

- 1 Monitor factors that could potentially impact supply chains (diseases, climate change, and natural disasters)
- 2 Strengthen supplier management, adaptation, and response capabilities to enhance overall supply stability
- 3 Strengthen supplier communication and monitor material delivery conditions in real time to obtain complete transportation and logistics information
- 4 Update delivery times for raw materials procured from suppliers to ensure timely replenishments
- 5 Headquarters centralizes inventory management for special materials and determines safety stock levels based on delivery times
- 6 Increase safety stock levels and track changes in demand for front-end hospitals and patients
- 7 Keep track of conditions in material production countries, assess supply shortage risks, and formulate responses in advance
- 8 Introduce digital management mechanisms, enhance operational efficiency, and strengthen supply chain management resilience and flexibility
- 9 Establish alternate material sources to lower supply shortage risks and ensure supply chain stability

We have conducted comprehensive surveys of raw materials and determined priorities for introducing alternate materials based on internal SOPs to prevent risks from emergency incidents.



Additionally, PharmaEssentia USA adopted the following measures to stabilize material flows and optimize procurement processes:



Added pre-filled injectables manufacturers and labeling and packaging suppliers



Established global sales and operations planning (S&OP) processes to stabilize supply of active pharmaceutical ingredients and drug products



Hosted global supply chain meetings with Taiwan headquarters once every two weeks for continued inventory tracking



Submitted rolling forecast reports of active pharmaceutical ingredient and drug supplies to Taiwan headquarters each month



Upgraded SAP system from B1 to S4, and connected procurement, material numbering, and invoicing processes to internal processes

PharmaEssentia USA is also planning to set up a second third-party logistics site in 2025 to store excess drugs at different geographical locations, ensuring stability of drug supplies.

► 2. Supply Chain Management Practices

► Supplier Management by Category

To enhance supplier management efficiency, PharmaEssentia headquarters, Panco, and PharmaEssentia Japan categorized suppliers involved in direct transactions with PharmaEssentia as Tier 1 suppliers based on risks and procurement amounts. GMP suppliers that cannot be easily replaced are defined as significant suppliers. Suppliers are managed based on these two categories. PharmaEssentia headquarters worked with 362 suppliers in 2024, including 47 significant Tier 1 suppliers with procurement amounts making up 63.4% of total procurement in 2024.

PharmaEssentia headquarters supplier categories for 2024 were as follows:

Supplier category	Tier 1 (number of suppliers)	Non-Tier 1 (number of suppliers)	Total
Significant suppliers	47	44	91
Non-significant suppliers	180	91	271
Total	227	135	362

PharmaEssentia Japan supplier categories for 2024:

Supplier category	Tier 1 (number of suppliers)	Non-Tier 1 (number of suppliers)	Total
Significant suppliers	3	7	10
Non-significant suppliers	2	0	2
Total	5	7	12

All products and services from PharmaEssentia USA suppliers were categorized using a quality system, and routine inspections are conducted regularly on significant suppliers such as third-party logistics companies (3PL), CMOs, and transportation companies. New suppliers are also reviewed before contract signing. In 2024, we conducted an inspection of a secondary packaging solution provider (Cardinal Health Packaging Solutions). PharmaEssentia USA meets with Tier 1 suppliers once every two weeks to discuss all possible product supply chain risks, and also holds annual review meetings with third-party logistics companies to review pharmaceutical trading operations and mechanisms.

Supplier qualifications are determined in accordance with US SOP-QA-003 supplier qualification procedures (GMP) and SOP-QA-009 external audit results. In 2024, PharmaEssentia USA had 7 Tier 1 suppliers who all complied with GMP standards for significant Tier 1 suppliers. All suppliers have passed US and Taiwan quality inspections.

PharmaEssentia US supplier categories for 2024:

Supplier category	Number of suppliers	Ratio (%)
All Tier 1 suppliers	7	100%
Significant Tier 1 suppliers	7	100%

► Supplier Risk Categories

In terms of supplier management, our Taiwan headquarters uses the following principles to determine supplier risks:

- 1 Whether they are significant suppliers, or if they provide materials or services directly related to patients or trial participants
- 2 Whether the materials or services provided are used in pilot production, clinical trials, or commercial production stages
- 3 Whether the materials or services provided have high impacts, such that changing suppliers could significantly impact research and development or manufacturing
- 4 Whether the materials or services provided have low substitutability encompassing factors such as single sourcing or patented technologies
- 5 Whether the annual procurement volumes or monetary values are high
- 6 Whether there are high impacts from environmental, governance, or social factors on the materials or services provided, which could affect supply continuity or regulatory compliance

In 2024, our Taiwan headquarters evaluated 362 suppliers; 9% were considered high risk, 28% were considered low risk, and 63% were considered moderate risk. The number of low-risk suppliers decreased by 46% and the number of moderate-risk suppliers rose by 41%, mainly as production demand increased significantly in 2024, affecting factory production processes

and material needs while also posing significant challenges to delivery times compared to previous years. Therefore, we raised risk levels for associated suppliers to moderate risk to strengthen control measures.

Year	2022		2023		2024	
Risk levels	Number of suppliers	Ratio	Number of suppliers	Ratio	Number of suppliers	Ratio
Low risk	148	74%	309	74%	102	28%
Moderate risk	41	20%	94	22%	228	63%
High risk	12	6%	16	4%	32	9%
Total	201	100%	419	100%	362	100%

Note 1: Risk level assessments included PharmaEssentia's Taipei and Taichung sites
Note 2: Risk level classifications: The Taichung Plant classified risks as Minor, Major, and Critical based on GMP quality management standards
Note 3: PharmaEssentia's Taipei and Taichung sites classified risks based on the following criteria: High risk (more than 3 items), moderate risk (1 or 2 items), and low risk (none)

PharmaEssentia USA has also established a risk management process and conducted gap analysis to identify supply chain management risks. Supplier risks are managed through US and Taiwan quality systems. We assess each supplier and the quality of provided materials and services to ensure GMP compliance, and periodically reassess supplier qualifications. We plan to implement response measures for high-risk supply chain management items in 2025 encompassing any services, components, or raw materials that cannot be easily replaced (such as sterile CMOs, drug warehousing, container sealing systems, active pharmaceutical ingredients, or other exclusive components), preventing impacts to drug distribution that may lower patient access to medicines.

► Management Mechanisms by Risk Level

PharmaEssentia adopts the following management strategies for vendors/suppliers based on different risk levels:

Risk level	Supplier management mechanisms
High Risk	1. Strategic alliances: Build mutually beneficial alliances with suppliers 2. Maintain sound interactions with suppliers and establish solid collaborative relations 3. Evaluate total cost of ownership (TCO) encompassing service scope, quality, schedules, and other performance indicators 4. Sign contracts to ensure service quality, content, and material sources 5. Self-produce, self-manufacture, or re-refine 6. Ensure supply stability 7. Maintain sound interactions with suppliers and utilize service information provided by vendors 8. Develop new suppliers and Second Sources to prevent supply shortage risks
Moderate Risk	1. Require vendors to prepare additional inventory for recurring materials to enable timely supply 2. Integrate procurement items and departmental needs 3. Actively check and compare prices for exclusive or competitive materials 4. Analyze item prices and costs
Low Risk	1. Implement recurring purchasing processes that adhere to and maintain necessary procurement procedures 2. Number of orders and order frequency

► Response Actions Adopted for Supplier Deficiencies at Different Risk Levels

PharmaEssentia adopted the following response actions for supplier/product deficiencies at different risk levels:

Risk levels	Appraisal frequency	Response actions
High Risk	Annually	- Conduct preventive monitoring processes and formulate response plans - Require suppliers to adopt immediate improvement measures - If major deficiencies are involved, PharmaEssentia will determine whether to immediately cease procurement or terminate contracts
Moderate Risk	Annually	- Require suppliers to adopt immediate improvement measures - If major deficiencies are involved, PharmaEssentia will determine whether to immediately cease procurement or terminate contracts
Low Risk	Annually	Implement routine management based on annual appraisal standards

► Screening of New Suppliers/Contractors

PharmaEssentia emphasizes supply chain environmental and social impacts. Our screening criteria for suppliers/contractors include 3 major indicators (quality systems, technical capabilities, and services and supporting capabilities). We have also incorporated environmental and social indicators in supplier screening mechanisms. If suppliers receive the same evaluation results on the 3 major indicators, PharmaEssentia prioritizes suppliers with better environmental and social performance. PharmaEssentia engages with oligopoly and monopoly suppliers that perform well on quality systems, technical capabilities, and services and supporting capabilities, but have weaker environmental and social impacts to gradually enhance their sustainability awareness and improve their environmental and social sustainability actions, thereby facilitating long-term and sustainable collaborative relations. In 2024, our Taiwan headquarters added 148 new suppliers and contractors, including 99 local suppliers.



Environmental indicators

- 1 Compliance with all applicable environmental laws, related regulations, and reporting components
- 2 Ensure that waste materials, exhaust gases, and wastewater are treated, delivered, stored, recycled, reused, and managed in accordance with regulations
- 3 Optimize resource usage and resource cycles to reduce resource consumption
- 4 Achieve biodiversity, no deforestation, land conservation, zero net deforestation targets
- 5 Achieve climate commitments to reduce greenhouse gas emissions and achieve carbon neutrality commitments



Social indicators

- 1 Pledge to provide workers with acceptable living (work) environments
- 2 Prohibit use of forced labor and do not restrain or restrict the personal freedoms of workers
- 3 Freedom of association and collective bargaining rights
- 4 Maintain employee health and safety
- 5 Guarantee minimum wages, overtime hours, and statutory benefits
- 6 Treat employees humanely and ensure that they are free from all forms of sexual harassment, physical punishment, physical persecution, and verbal violence
- 7 Anti-discrimination
- 8 Prohibition of child labor

► Supplier/Contractor Assessments

We conduct regular annual supplier/contractor audits that combine both internal appraisals and reviews with on-site audits in accordance with Supplier Audit Procedures. We shorten re-audit frequencies for high-risk vendors and require improvement actions. If major deficiencies are discovered, we immediately cease procurement processes. PharmaEssentia prioritizes procurement and collaboration with suppliers that perform well on assessments, and increases procurement ratios as appropriate. In future, we plan to publicize assessment information internally for reference by various demand units to promote collaboration opportunities with suppliers that demonstrate good ESG performance. Additionally, we prioritize assessments of suppliers that have expanded into new businesses to strengthen collaboration relations and expand our business scope.

Internal review and on-site audit items include quality management, delivery capabilities, production and technological capabilities, client services and response capabilities, compliance, and ESG implementations:

- ✓ **Quality management:** Review whether suppliers comply with product or service quality requirements, and assess the effectiveness of quality control processes
- ✓ **Delivery capabilities:** Focus on whether suppliers can deliver products complying with specifications in a timely manner while ensuring accuracy of distribution processes
- ✓ **Production and technological capabilities:** Review supplier production facilities, equipment technological levels, and R&D capabilities to ensure that suppliers possess required capabilities
- ✓ **Client services and response capabilities:** Assess supplier handling efficiency of client needs, complaints, and service issues, and associated satisfaction levels
- ✓ **Compliance and ESG implementations:** Check whether suppliers comply with related regulations and adhere to environmental, social, and governance (ESG) standards. For more information, please refer to our Supplier/Contractor Sustainable Risk Assessment

Of these, delivery of raw materials is the most important consideration for PharmaEssentia, as shortages in raw materials affect related production processes and R&D progress. Therefore, PharmaEssentia requires suppliers to ensure product supply and quality.

► Number of Suppliers Included in PharmaEssentia Internal Reviews and On-Site Audits in 2024

Type of evaluation	Number of suppliers that should be reviewed/audited		Number of suppliers that completed reviews/audits		Review/audit results
	Domestic	Overseas	Domestic	Overseas	
Internal reviews	164	19	164	19	• All 183 suppliers passed reviews • Including 7 significant Tier 1 suppliers, 103 non-significant Tier 1 suppliers, 11 significant non-Tier 1 suppliers, and 62 non-significant non-Tier 1 suppliers
On-site audits	5	9	3	4	

- 14 suppliers were scheduled for audits in 2024, including:
 - 2 domestic significant Tier 1 suppliers
 - 6 foreign significant Tier 1 suppliers
 - 1 domestic non-significant Tier 1 supplier
 - 5 non-Tier 1 suppliers
- Audits were conducted on 7 suppliers (including 1 supplier that underwent a remote audit and 1 supplier that underwent a desktop audit)
- Reasons for not auditing the remaining 7 suppliers: Audits for 3 suppliers were moved to 2025 due to scheduling delays and audits on 4 suppliers were cancelled due to incorporation of new materials

PharmaEssentia USA conducted on-site audits on US manufacturers and Tier 2 suppliers to determine their capabilities and production capacities, and also adopted a weighted decision matrix incorporating weights for five priority items (supply continuity, compliance, quality, delivery time, and cost assessments) to conduct quantitative comparisons, ensuring fair assessment of new suppliers/vendors. PharmaEssentia USA also conducted on-site due diligence procedures to align the business strategies of both parties.

In 2024, PharmaEssentia Japan evaluated 2 vendors, a logistics company and a testing company. No major deficiencies were discovered during these audits.



► Supplier/Contractor Sustainability Risk Assessment

In 2024, PharmaEssentia incorporated supplier understanding and execution of the Supplier Code of Conduct in supplier sustainability risk self-assessment surveys to ensure that our global supply chain is fulfilling social responsibilities while enhancing the corporate brand image and market competitiveness of our supply chain. PharmaEssentia headquarters conducts an annual supplier environmental and social regulation audit each year. If any supplier violations are discovered, we work with related units to understand and investigate the situation. PharmaEssentia adopts a friendly approach when engaging with suppliers, and only terminates contracts following careful evaluation when consensus cannot be reached following multiple rounds of communications.

In 2023, a contractor was found to be in violation of the Waste Disposal Act and was fined NT\$3,600. We tracked improvements for this violation incident to ensure compliance with PharmaEssentia bylaws and implemented corrective actions for said violation incident. Tracking results

indicated that the contractor had read and complied with PharmaEssentia's Supplier Code of Conduct. In order to avoid subsequent violation incidents, we review supplier qualifications (such as whether they possess legal licenses) and other response measures prior to collaboration.

In 2023, before Ropeg received marketing authorization, PharmaEssentia Japan rated suppliers using the Supplier Code of Conduct and required compliance from all vendors. In 2024, PharmaEssentia Japan also adopted the Supplier Code of Conduct for evaluations, and implemented regular visits to the websites of outsourcing companies to check their ESG activities. No violations were discovered during the evaluation process.

PharmaEssentia USA conducts irregular on-site supplier audits every year. Even though no routine audits were conducted in 2024, PharmaEssentia conducts non-periodic audits based on US political environments and market conditions to fulfill sustainable management principles.

► Sustainability Risk Evaluation Channels

PharmaEssentia uses diverse sustainability risk evaluation channels for timely identification of supply chain risks and to help managers formulate efficient risk management policies:



Regular self-assessment surveys

Distribute surveys each year to investigate collaborating partner risks on five aspects: corporate governance, labor rights, regulatory compliance (environmental and labor regulations), and environmental impacts. We calculate weighted scores and use cross-check questionnaires to accurately determine the reliability of survey responses.



Irregular interviews

Conduct irregular interviews with significant suppliers to understand their thoughts on sustainable management and associated risks when responding to dynamic changes in market and risk conditions.

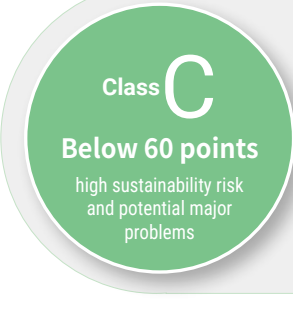


Public information audits

Regularly review public information, including government regulations, industry reports, and media reports to track possible risks and opportunities associated with sustainable management of suppliers.

► Sustainability Risk Self-Assessment Questionnaire

Sustainability risk self-assessment questionnaire items receive different weighted scores based on risk levels, and total scores are used to determine supplier risk levels. As there are differences in supplier types and associated issues, we compare supplier scores following proper calibration, and separate suppliers into three levels:

	Description	Subsequent management actions
 Class A Above 80 points low sustainability risk, good performance	High scores on sustainability risk self-assessment questionnaire indicate that supplier labor rights, occupational safety, management systems, and environmental management aspects all comply with our standards.	• Continued monitoring and support: Continue to maintain good collaborative relations with suppliers, regularly review sustainable development performance, and provide necessary support and resources to promote sustainable growth • Incentives and commendations: Provide recognition or awards to outstanding suppliers and list them as first-choice suppliers while maintaining sound interactions and collaborations • Experience sharing: Encourage Class A suppliers to share their successful experiences related to sustainable management to help other suppliers enhance their performance
 Class B 60-80 points moderate sustainability risk and requires some improvement	Suppliers have specific risks or room for improvement on some issues, and need to formulate long-term improvement plans.	• Improvement plans: Work with suppliers to jointly formulate specific improvement plans, set quantitative indicators and targets, and require suppliers to correct related issues within specified time limits • Regular review and tracking: Establish regular evaluation mechanisms to track and assess supplier progress. If suppliers fail to meet our expectations, we provide more resources and support, or strengthen collaborations • Risk management guidance: Provide professional advice and training to help suppliers enhance their sustainability risk management capabilities, and encourage suppliers to establish comprehensive sustainable development mechanisms
 Class C Below 60 points high sustainability risk and potential major problems	Suppliers with high risks who fail to comply with our sustainability requirements or local regulations, and need immediate improvement.	• Immediate improvement: Require suppliers to implement improvements quickly, and provide improvement plans and necessary guidance for specific issues. Specific time limits may need to be set for improvements involving serious issues • Risk assessments and adjustments in collaborative relations: Conduct comprehensive risk assessments on high-risk suppliers and determine whether to continue collaborations based on improvement results. If suppliers do not complete improvements according to schedule, we will consider terminating collaborations

PharmaEssentia regularly updates risk assessment standards in accordance with changes in market environments, laws and regulations, and supplier business strategies, and also implements dynamic adjustments and rolling amendments of evaluation standards based on supplier business strategy changes. We have established smooth communication and management mechanisms that allow us to maintain regular communications and interactions with suppliers, enabling them to understand PharmaEssentia assessment standards. We also require suppliers to update us on improvements made to strategies, methodologies, and conditions, as well as relevant challenges, thereby creating virtuous two-way collaborative relationships.

► Implementations in 2024

In 2024, PharmaEssentia headquarters conducted online sustainability self-assessment surveys on 43 priority suppliers who complied with GMP requirements and supplied services/products closely linked to environmental protection issues:

• Encompassed five aspects

- 1 Compliance with labor and environmental regulations
- 2 Labor rights
- 3 Occupational safety
- 4 Corporate governance
- 5 Environmental protection

- 45 survey items
- Survey response rate: 84%
- Investigated 43 suppliers, and 36 suppliers completed self-assessments:



Assessment results:

Aspect	Results	Subsequent tracking
Ethical management	Adhered to PharmaEssentia standards	
Compliance with labor laws	7 suppliers had violated legal regulations with no penalties (appropriation of employee benefits and regular hosting of labor-management meetings) and 2 suppliers had been penalized by competent authorities due to violations of the Labor Standards Act	Tracked all issues and required corrective actions
Compliance with environmental laws	1 supplier was penalized by competent authorities due to violations of environmental regulations	

Local Procurement

PharmaEssentia seeks to generate mutual prosperity for the biotechnology industry. Apart from considering price and quality conditions, we also continue to actively seek opportunities for collaboration with local

companies based on procurement needs to increase local procurement ratios in Taiwan. When purchasing new products, we start by evaluating the feasibility of working with local suppliers. For existing products, we analyze related markets and select appropriate and reliable local suppliers based on past experiences and diverse selection criteria to ensure supply chain stability. We established sound and long-term collaborative relations with suppliers that uphold similar principles and sustainable management aims. Apart from increasing business opportunities with outstanding suppliers that facilitate sustainable management, we also ensure mutual benefits on sustainability issues to effectively lower transaction, social, and business risks for both parties and to promote sustainable local procurement plans.

In 2024, PharmaEssentia adopted the same unified electronic laboratory records systems around the globe, increasing procurement expenditures for the US region. Additionally, in line with global depositary receipt (GDR) and competent authority requirements, procurements for some projects need to be purchased using US dollars. Therefore, local procurement amounts for 2024 decreased compared to 2023, but still accounted for 64% of all procurement amounts.

	Region	2022	2023	2024
Local procurement	Taiwan	79.6%	89.0%	64.0%
Non-local procurement	US	20.4%	11.0%	35.0%
	Other regions in Asia	0%	0%	1%
Total		100%	100%	100%

Supplier Engagement

PharmaEssentia regularly distributes self-assessment surveys and conducts irregular supplier interviews. We engage with suppliers and look forward to working with our business partners in implementing sustainable management concepts. We continue to track supplier technologies, operational conditions, and sustainable performance to expand our industrial influence. In future, PharmaEssentia plans to promote supplier guidance plans, training, and other specific projects to empower suppliers, working together to enable sustainable growth in our partnerships.

Enhancing Sustainability Awareness in Procurement Personnel

To strengthen procurement personnel knowledge of sustainable supply chains, we organized diverse ESG competency training, including:

- **Annual ESG training and consultant guidance:** Collaborated with professional ESG consultants and hosted annual training encompassing sustainability governance, carbon management, supply chain risk controls, and other themes, assisting our colleagues to keep informed of the latest sustainable development trends and practical applications
- **Internal training and interdepartmental discussions on ESG topics:** Discussions on supplier sustainability risk assessment methods and meetings to compile data on supply chain carbon emissions
- **Industrial ESG experience sharing and exchanges:** We invited industry experts to share practical ESG experiences such as corporate promotion of internal carbon pricing, supply chain carbon inventories, and sustainability management strategies and achievements to promote internal learning and external exchanges, and to enhance overall sustainable development performance
- **External organization lectures, courses, and seminars:** Non-periodic participation in external activities (such as the "Viewing sustainable investment from supply chain management" seminar and the "EcoVadis global supply chain sustainability evaluation courses") to obtain the latest ESG knowledge and international regulations