Groundhog Technologies

2023 ESG Report

Groundhog

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About This Report

This report is intended to explain to shareholders, employees, customers, suppliers and other stakeholders the sustainability matters of concern to them. In addition, this report aims to appropriately disclose the company's actual actions in promoting major issues such as corporate governance, environmental protection, and social participation.

Reporting Initiative and Assurance

This report is voluntarily prepared in accordance with the latest GRI standards. Reports in future years will seek assurance and verification from independent third-party verification agencies.

Reporting Period

From January 1 to December 31, 2023.

Reporting Cycle

This report is published once a year, and the last report date is December 25, 2023.

Reporting Scope

The reporting boundary of this report is the Taiwan headquarters of Groundhog Technologies. Information on social and environmental categories is mainly from the Taiwan headquarters.

There were no significant changes in organizational structure, ownership or suppliers during the reporting period.

Reporting Guidelines

The contents of this report are prepared in accordance with the latest GRI Sustainability Reporting Standards (GRI Standards) issued by the Global Reporting Initiative (GRI). For details on the comparison between the contents of this report and the details of the GRI Guidelines, please see the appendix.

External Verification

This report is voluntarily prepared and has not yet introduced third-party impartial organizations for assurance and verification.

Intro

Groundhog is committed to addressing some of the biggest challenges in the telecommunications industry through innovative and sustainable solutions, giving back to our society, and enhancing the mobile communications and digital industry.

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About Groundhog

Founded in 2001, starting from the Massachusetts Institute of Technology (MIT). Groundhog Group is a global leader in big data analytics for mobile networks, even before its establishment, it won the semi-final prize in the MIT Entrepreneurship Competition. It is one of the earliest high-tech companies in the world to base its research on the behavioral patterns of mobile phone users and to develop massive data analysis techniques for mobile communications. With many years of experience in telecom data research and approximately forty patents in telecom data analysis, the company has a unique competitive advantage and is actively developing various innovative applications.

Groundhog Technologies has independently developed specialized platforms for the telecommunications industry, including the mobile network optimization and positioning platform (CovMo™), the mobile intelligent advertising platform (Mobility Intelligence™), and RealMotion™. These platforms assist telecom operators in tracking all mobile user locations and network quality in real-time across the entire network. They provide multi-dimensional insights into mobile users' movement patterns and usage behaviors, transforming vast amounts of telecom data into valuable solutions.

Clients span across all five continents, primarily serving global telecom operators and international advertising agencies. These include the world's third-largest telecommunications giant, Bharti Airtel; Saudi Arabia's top two operators, STC and Mobily; Japan's Rakuten Mobile; Asia's telecommunications powerhouse, Singtel Group; Taiwan's FarEasTone Telecommunications; Indonesia's top two telecommunications leaders, Telkomsel and Indosat Ooredoo Hutchison: the telecom giant Ooredoo Group spanning across the Middle East, Africa, and Asia; and Japan's large multinational advertising agency, Dentsu Group …etc. Groundhog Technologies derives over 80% of its annual revenue from overseas markets, making it one of the few Taiwanese wireless communication software companies focused primarily on the international market.
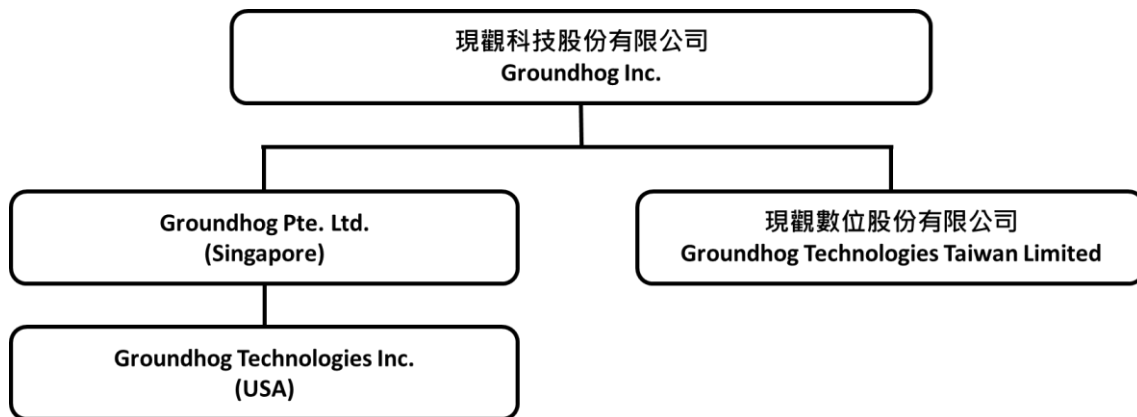

Groundhog Technology Partners

The revenues in the past two years by locations are as follows:

Area	Year	2022		2023	
		Value	Ratio	Value	Ratio
	Taiwan	54,745	17.50	27,243	7.34
Overseas	Europe	37,268	11.91	19,450	5.24
	Asia	217,350	69.47	281,069	75.72
	America	1,451	0.46	4,625	1.25
	Oceania	2,063	0.66	38,801	10.45
	Others	-	0.00	-	0.00
	Total	258,132	82.50	343,945	92.66
	Grand Total	312,877	100.00	371,188	100.00

Unit: Thousands NTD (New Taiwan Dollars); %

Based on the concept of growing up in Taiwan and contributing to Taiwan, Groundhog Group planned to be listed in Taiwan. Therefore, Groundhog Inc. was established in 2019. The operation and R&D headquarters are both set in Taiwan, and it was successfully listed on the Taiwan Stock Exchange on January 15, 2024. Listed on the exchange, stock code 6906, industry category is digital & cloud services. The following is the organizational chart of Groundhog Group:

Our Solutions

CovMo™ Mobile Network Optimization Positioning Platform

CovMo™ is the flagship product of Groundhog Technologies. Currently, CovMo™ revenue accounts for more than 90% of the total revenue. Customers are from five continents, and the platforms deployed around the world simultaneously analyze big data from more than 800 million mobile phones.

CovMo™ is a mobile network optimization and positioning platform independently developed by Groundhog, the first launched in the world, and continuing to have a leading market share. It analyzes, decodes and compiles network signaling data into meaningful information to help mobile operators optimize and troubleshoot the networks.

This is not only different from the simple use of conventional triangulation positioning and multi-dimension positioning methods, but also more efficient and effective than traditional drive test. The positioning accuracy is the first in the industry. In the 5G era, there will be more and different data. Products that can convert this additional data into system parameters will be able to more accurately locate and solve problems, and to be more competitive.
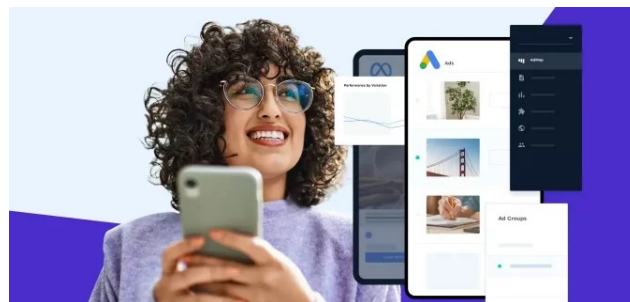
The main features of CovMo™ are as follows:

I. More than 150 mobile network key performance indicators (KPIs), covering network coverage and quality, accessibility, continuity, mobility, traffic and other analysis aspects, assisting telecom operators in network deployment. In each stage, CovMo™ can quickly identify the root cause for poor user communication experience for better network management and user experience optimization tasks.

II. Multiple advanced filtering fields clearly distinguish between indoor, outdoor, moving and stationary modes.

III. Mobile phone user-centered geolocation services ensure a comprehensive review of communication quality from the subscriber's perspective.

IV. User friendly interface design and intuitive user experience, multiple map window presentation and comparison, quick view and deep-dive analysis of network problems in specific locations.

V. Base station automatic optimization function, including improving interference among adjacent base stations, antenna orientation and tilt azimuth, etc.

VI. End-to-end signaling call trace support from various equipment manufacturers and network management equipment suppliers.

CovMo™ presents signal strength using color coding in 3D images, clearly showing the number of users in each area. It helps telecom operators improve signal quality, optimize base station performance, andprovides recommendations for future deployment of base stations and small cells.

Mobility Intelligence™ Mobile Smart Advertising Platform

Data Monetization is a growth opportunity that companies with large amounts of behavioral or consumption data are paying great attention to. Under the premise of protecting the privacy of telecomsubscribers, Groundhog Technologies uses anonymized telecom user data, uses base station positioning algorithms, and incorporate with Big Data, Artificial Intelligence (AI), and Machine Learning, we successfully developed the Mobility Intelligence™ solution, which provides telecom operators with a complete picture of mobile phone users. Transforming rich telecom data assets into new economic business opportunities also allows brand owners and advertisers to use telecom data to carry out customer analysis, marketing planning, digital advertising and other marketing and promotion work.

Mobility Intelligence™ (hereinafter referred to as MI) is mainly divided into two sub-products:

I. **Mobile Intelligence Data Analysis Platform (MI-DMP™)**

   MI-DMP™ helps telecom operators diversify the applications and monetize data. The data sources include users' online and offline behaviors, combined with interpersonal communication records and offline transaction information, and converted into mobile user behavior patterns and business wisdom. It helps telecom operators to provide better services and quality. MI-DMP™ uses a variety of algorithms such as exclusive patented deep learning and topology analysis to analyze and predict the behavior patterns of subscribers in all locations, so that the subscriber's profile can be comprehensively and specifically analyzed so as to reach a scale that only telecom operators can achieve. We work with leading brands in digital technology to provide innovative end-to-end solutions for telecom operators.

II. **Mobile Intelligent Real-time Bidding Platform (MI-DSP™)**

   MI-DSP™ combines de-personalized encryption technology and uses massive telecom data to support real-time bidding advertising services while ensuring the security of user data and privacy, allowing telecom operators to use the most advanced technology to launch programmatic advertising services to marketers and advertisers, allowing telecom operators to quickly occupy a place in the advertising industry.
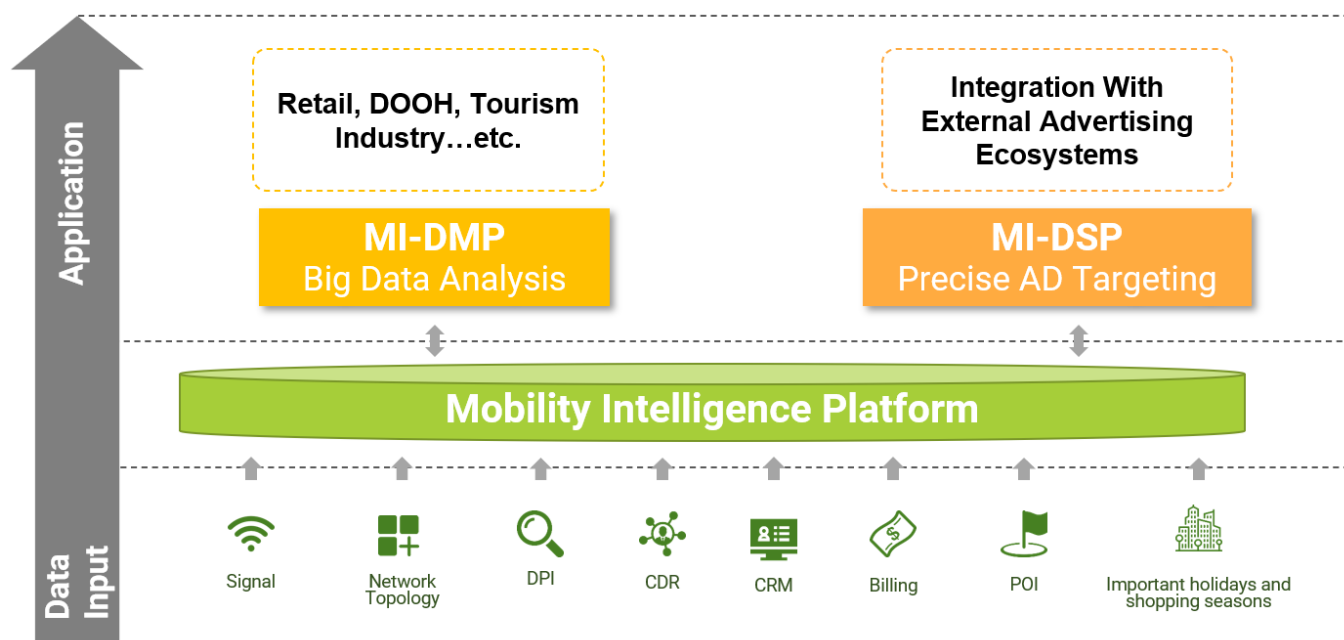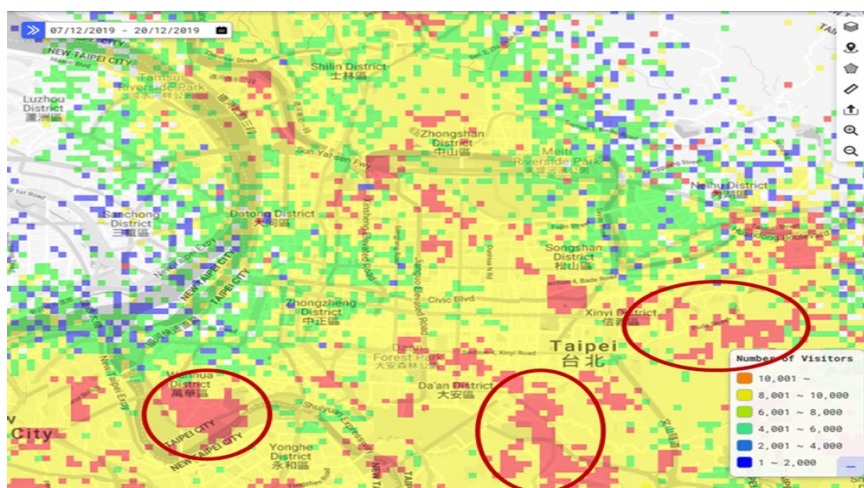
RealMotion™

The movement behavior of the crowd has an important impact on urban planning and even epidemic control. Groundhog Technologies uses its self-developed geo-positioning technology to successfully develop the value-added application product RealMotion™.

During the COVID-19 epidemic, our team successfully used telecom big data with its precise positioning technology to provide mobility analysis of virus infected persons and contacts, assist in contact tracing management operations, and effectively help government and private epidemic prevention work aids agencies, public health experts and researchers in controlling the spread of the coronavirus (COVID-19), and taking the social responsibility and being a good citizen.

In addition, the company also uses precise geolocation technology to assist in the construction of smart cities in Saudi Arabia, infrastructure planning for the UAE World Expo, World Cup football matches, and pilgrimage flow planning in Mecca, etc. By analyzing local telecommunications signaling with the aids of big data and AI prediction, it can assist the local government in planning public transportation routes and bus schedules before and after the event, and can monitor the flow of people in each district in real time during the event. The system platform will automatically send out a warning to notify the local police force when there is too much flow of people, helping to reduce stampedes events, improving life qualities, and maintaining citizens safety.

RealMotion™ is capable of analyzing population density in specific areas, assisting in identifying high-risk locations during the pandemic.

Sustainability Vision

Since the establishment of Groundhog Technologies, with the development of global wireless communication technology, all the way up to the evolution of 5G technology, we have also continuously deepened core technologies, towards the vision of "creating high-efficiency wireless communication network application value with positioning technology" go ahead. In our continuous pursuit of self-improvement and growth, we deeply understand that in addition to solidifying market competitiveness through technological development, it is essential to cooperate with both internal and external stakeholders such as employees and customers for sustainable operations. Enterprises should not only strive for revenue maximization but also contribute to sustainability in environmental, social, and economic aspects. In the process of creating value for the company, we aim to balance and manage risks among stakeholders like employees and customers. Internally, we foster a friendly workplace environment, value employee rights, and support their self-worth and physical and mental development, hoping that the company and employees can motivate and grow together. Externally, we actively communicate with customers to fully understand market and customer demands.

To review, adjust and review our corporate commitments. We plan a sustainable operating model that takes into account the environment (E, Environment), society (S, Social), and governance (G, Governance), and gradually implement corporate social responsibilities. We also use telecommunications data analysis and precise positioning technology to help customers optimizing their mobile network to get more efficiency and consume less energy. We look forward to creating contributions and value for all stakeholders through sustainable development during road layout and optimization.

Ambition and Blueprint

In order to accomplish the determination of sustainable operation and development, Groundhog Technologies has formulated a sustainable blueprint to ensure that the development of all aspects of ESG are consistent with the company's sustainable philosophy, and has set goals to track and review the implementation of corporate social responsibility.

Perspectives	Short-term goals (before the end of 2024)	Medium-term goals (from 2025 to 2027)	Long-term goals (after 2028)
Environmental	Improve the company's colleagues' awareness of environmental protection	Improve suppliers' awareness of environmental protection	Reduce electricity consumption per unit of revenue by 1% compared with the previous year
	Use energy-saving equipment when replacing old equipment	Maintain a high rate of local procurement	Continue to increase the local procurement rate
Social	Increase the proportion of internal training for employees	Strengthen international talent training	Increase the proportion of external training for employees
	Continue to participate in charity-related associations	Continue to improve the retention rate of existing employees	Continue to improve the retention rate of new employees
Governance	Planning for listing in Taiwan Stock Market	Improving the diversity of the Board of Directors	Continuously improving customer stickiness and stable overall profit growth
	Strengthen the publicity of insider equity laws	Improve employees' awareness of legal compliance	Continue to improve the diversity of directors
	Increase the revenue contribution of existing customers and continue to add new customers	Continue to strengthen information transparency	Implement the brand review mechanism to achieve responsible marketing

ESG Enhancement Units

In response to the increasingly severe global climate change, and to mitigate risks while fulfilling corporate social responsibility, we formulated the "Corporate Sustainable Development Promotion Guidelines" on December 30, 2022. We also established a ESG Enhancement Units composed of various departments to jointly promote related matters. The general manager ensures the implementation of corporate social responsibility and regularly reviews and revises the plans. The ESG Promotion Units report the execution status of sustainable development work to the Board of Directors annually. The board listens to the management's report on the company's operations and sustainable development execution. The management presents the company's planned strategies to the board, which assesses the feasibility of the strategies and provides recommendations to the management as necessary.

Since the establishment, in addition to focusing on core business, the management has diligently established ESG management system. The system ensures that company employees and suppliers adhere to the standards set forth and continuously track and improve compliance. We maintain good interactions with stakeholders, including shareholders, employees, customers, suppliers, the government, and society with fair treatment. The company aspires not only to fulfill its responsibility as a global citizen but also to firmly implement the concept of sustainable operation.

The ESG Promotion Units is convened by the general manager, with representatives from various departments including human resources, administrative management, research and development, and business units. They hold regular meetings to promote related activities. To ensure the smooth operation of the promotion team, the general manager regularly reports significant sustainability topics and improvements to the Board of Directors.

The organization chart and responsibilities of the ESG Enhancement Units are as follows:

ESG Enhancement Units

Sustainable management
- Corporate governance
- Integrity management
- Risk control
- Law compliance and internal control

General Manager's Office
Administrative Division

Business commitment
- Quality management
- Customer service
- Sustainable Research & Development

Business Operations Division
Research & Development Division
Mobile Intelligence Division

Employee care
- Staff caring
- Employee relations
- Professional training
- Welfare Benefits

Human Resources Division

Environmental sustainability
- Energy saving & carbon reduction
- Resource recycling
- Environmental sustainability

Administrative Division

Governance

Through a strong governance structure, we monitor ESG performance and take responsibility for sustainability commitments. This ensures that the actions of our employees align with our determination to become a leader in creating a sustainable world.

Governance Structure →

Board, Committee Functions and Internal Audit →

Business Integrity →

Information Security →

Risk Management →

Stakeholders →

Intellectual Property Management →

Supplier Management →

Governance Structure

Our company, in accordance with the "Sustainable Development Practices Principles," has established a Corporate Sustainable Development Promotion Team composed of cross-departmental personnels. It promotes related matters with the joint efforts of various departments, and the general manager ensures the implementation of corporate social responsibility. Regular reviews and plan adjustments are conducted. Corporate governance affairs are led and coordinated by the corporate governance officer, with each department responsible for their respective duties: the financial and accounting department handles the operations of the Board of Directors, audit committee, and compensation committee; the investor relations department manages the operations of shareholder meetings; the general manager office oversees and executes the company's integrity management and corporate social responsibility.

Board, Committee Functions and Audit

Board Diversity and Independence

Board Diversity

The company has established a "Corporate Governance Code," which stipulates that the composition of the Board of Directors should consider diversity. Based on its own operations, business model, and development needs, the company should formulate appropriate diversity policies. These policies should include, but are not limited to, basic criteria and values (such as gender, age, nationality, and culture) as well as professional expertise and skills (such as law, accounting, industry, finance, marketing, or technology). Board members should generally possess the necessary knowledge, skills, and qualities required to perform their duties.

To achieve the ideal goals of corporate governance, the Board of Directors should collectively possess the following capabilities:

  I.   Operational judgment
 II.   Accounting and financial analysis
III.   Management skills
IV.   Crisis management
  V.   Industry knowledge
VI.   International market perspective
VII.   Leadership
VIII.   Decision-making skills
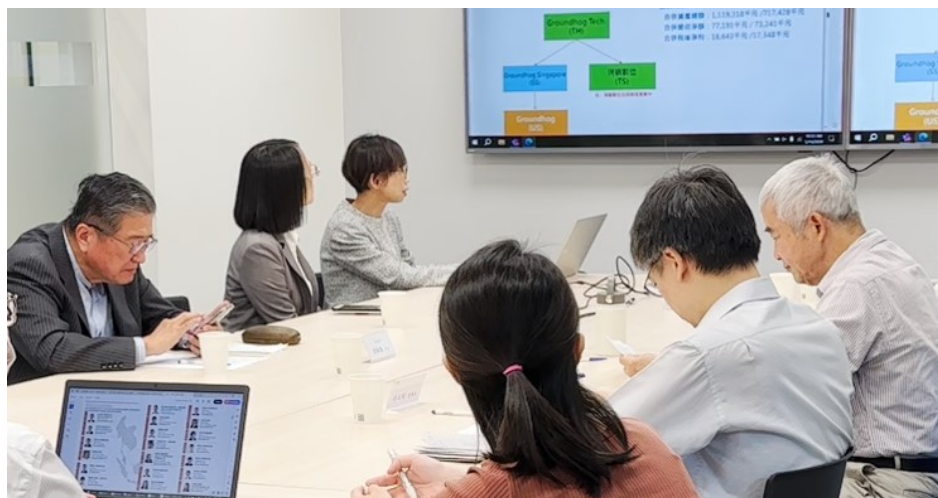
Composition of the Board Members

The second term board of members of Groundhog Technologies consists of seven directors, all of whom have diverse professional backgrounds in both industry and academia. They have expertise in various fields such as operational management, leadership and decision-making, industry knowledge, and financial sectors, providing professional opinions from different perspectives. This significantly enhances the company's operational performance and management efficiency. In terms of age, two directors are between 71-80 years old, four are between 61-70 years old, and one is between 41-50 years old. The board has a wide age distribution, balancing experience and execution capabilities.

For details on the implementation of board diversity, please refer to the table below:

Diversity Elements / Directors	Composition							Capabilities							
	Nationality	Gender	Serving as company officers	Below 51	Between 51 and 60	Between 61 and 70	71 and above	Operational judgment	Accounting and financial analysis	Management skills	Crisis management	Industry knowledge	International market perspective	Leadership	Decision making
David Chiou	Taiwan	Male	✓	✓				✓		✓	✓	✓	✓	✓	✓
Chiou, Pi- Huu	Taiwan	Male				✓		✓	✓	✓	✓	✓	✓	✓	✓
Horng, Jyh-Feng	Taiwan	Male			✓			✓	✓	✓	✓	✓	✓	✓	✓
Ho Chen, Tan	Taiwan	Male				✓		✓		✓	✓	✓	✓	✓	✓
Tseng, Chin- Lung	Taiwan	Male			✓			✓	✓	✓	✓	✓	✓	✓	✓
Tseng, Tsung- Lin	Taiwan	Male			✓			✓	✓	✓	✓	✓	✓	✓	✓
Lin, Yi-Bing	Taiwan	Male			✓			✓		✓	✓	✓	✓	✓	✓

Based on the Board of Directors' operations, business model, and development needs, The company has formulated the following goals to achieve greater board diversity and strengthen corporate governance. As of the submission date of this report, the progress is as follows:

Management Goals	Status
Directors concurrently serving as company officers not exceed one-third of the total number of the board members	✅
Board of directors contains at least one director of different genders	⚠️

Groundhog Technologies places great emphasis on gender equality in the composition of its Board of Directors. It is anticipated that a female director will be appointed at the 2024 Annual Shareholders' Meeting to achieve the goal of board diversity management.

Board Independence

The current Board of Directors consists of seven members, of which four are independent directors, accounting for 57.1%. There is one director with an employee status (chairman Mr. Chiu Ta-Gang, who also serves as the general manager), representing 14.3%. Among the board members, two have a second-degree kinship (chairman Mr. David Chiou and director Mr. Chiou Pi-Huu), representing 28.6%, which complies with the requirement of Article 26-3, Paragraph 3 of the Securities and Exchange Act, stipulating that no more than half of the board members should be related. Additionally, all independent directors meet the independence requirements outlined in the "Regulations Governing Appointment of Independent Directors and Compliance Matters for Public Companies."

Furthermore, our "Rules and Procedures of Board of Directors Meetings" includes a director interest avoidance system. For proposals listed by the Board of Directors, if there is a conflict of interest with a director or the legal entity they represent, and it may harm the company's interests, the concerned director can express opinions and answer questions but must not participate in the discussion and voting. They should also recuse themselves from the discussion and voting and cannot act as a proxy for other directors to exercise their voting rights.

Functional Committee and Internal Audit

Audit Committee

The Audit Committee is established to assist the Board of Directors in overseeing the quality and integrity of the company's accounting, auditing, financial reporting processes, and financial controls. This committee is composed entirely of independent directors, with a minimum of three members, one of whom serves as the convener. At least one member must possess expertise in accounting or finance. The audit committee meets at least once per quarter. In 2023, the committee held a total of seven meetings, with an average attendance rate of 86%.

Remuneration Committee

The purpose of the Remuneration Committee is to assist the Board of Directors in implementing and evaluating the company's overall remuneration and benefit policies, as well as the remuneration of directors and managers. The members of this committee are appointed by resolution of the Board of Directors, and the number shall not be less than three. This committee should have at least one independent director participating, and all members should elect an independent director to serve as the convener and chairman of the meeting. The Salary and Remuneration Committee was established on August 4, 2022, and held 4 meetings in 2023. The average attendance rate was 94%.

Internal Audit

The company's internal control system includes the transaction management of related parties, the supervision and management of subsidiaries, the management of discussion matters about Board of Directors, audit committee, and salary and remuneration committee. The Internal Audit Division arranges audits each year and report to the Audit Committee and Board of Directors.

Board Operations Enhancement

To achieve effective governance, improve the company's operational efficiency, reduce risks, and protect the interests of stakeholders, our directors participate in corporate governance and professional knowledge related courses each year and obtain certifications. This helps board members continuously update industry knowledge, understand trends, and adopt best practices. The training covers topics such as corporate law, financial reporting standards, risk management, and strategic planning to help directors perform their duties more efficiently. Additionally, the company has purchased liability insurance for all directors.

Below is the training status of board members during the reporting year:

Title	Name	Date	Organizer	Course name	Hours
Chairman	David Chiou	2023.04.20	Taiwan Corporate Governance Association	Corporate Governance and Securities Regulation	3
Director	Chiou, Pi- Huu	2023.04.20	Taiwan Corporate Governance Association	Corporate Governance and Securities Regulation	3
Director	Horng, Jyh-Feng	2023.04.20	Taiwan Corporate Governance Association	Corporate Governance and Securities Regulation	3
Independent director	Ho Chen, Tan	2023.04.20	Taiwan Corporate Governance Association	Corporate Governance and Securities Regulation	3
		2023.03.17	Taiwan Corporate Governance Association	Common Practical Sharing of Board Meeting Operation Deficiencies	3
Independent director	Tseng, Chin- Lung	2023.04.20	Taiwan Corporate Governance Association	Corporate Governance and Securities Regulation	3
		2023.03.28	Securities and Futures Institute (SFI Taiwan)	How directors supervise the company in establishing and promoting a comprehensive risk management system	3
Independent director	Tseng, Tsung- Lin	2023.04.20	Taiwan Corporate Governance Association	Corporate Governance and Securities Regulation	3
		2023.03.09	Accounting Research and Development Foundation	Analysis of Corporate Governance Policies, Regulations, and Common Deficiencies	3
Independent director	Lin, Yi-Bing	2023.04.20	Taiwan Corporate Governance Association	Corporate Governance and Securities Regulation	3
		2023.03.15	Securities and Futures Institute (SFI Taiwan)	Introduction to Disputes over Corporate Control and Adjudication Laws on Commercial Events	3
Major shareholders holding more than 10% of the shares	Representative of Wellwealth Co., Ltd.: Li Bin	2023.04.20	Taiwan Corporate Governance Association	Corporate Governance and Securities Regulation	3

The Company Board passed the "Rules for Performance Evaluation of Board of Directors" at the meeting on December 27, 2022. Annual performance evaluations are conducted for the members of board, audit committee, and Salary and Remuneration Committee. According to Article 9 of the aforementioned method, the evaluation results are reported to Salary and Remuneration Committee and Board of Directors, and are used as a reference for individual directors' compensation and reappointment ESG nominations.

Period	Target	Method	Assessments
2023.01.01 To 2023.12.31	Individual Board members	Director self-assessment	Performance evaluation for each board members: 1. Comprehension of the Company's targets and missions 2. Awareness of the director's duties 3. Level of participation in the Company's operations 4. Management and communication of internal relations 5. Professionalism and continuing education of the director 6. Internal control
	Board of Directors	Board of Directors internal self-assessment	Performance evaluation for Board of Directors: 1. Level of participation in the Company's operations 2. Quality of decisions made by the board of directors 3. Composition of the Board of Directors 4. Election and continuing education of directors 5. Internal control
	Functional committees	Functional committee internal self-assessment	Performance evaluation for functional committees (include audit committee & remuneration committee): 1. Level of participation in the Company's operations 2. Awareness of the functional committee's duties 3. Quality of decisions made by the functional Committee 4. Composition of the functional committee and selection of committee members 5. Internal control

Overall, the directors highly agreed with the operation of various evaluation indicators. The evaluation indicated that the overall operation of the board and each functional committee was good, meeting corporate governance requirements, effectively enhancing board functions, and protecting shareholders' rights.

Business Integrity

To strengthen the corporate culture of integrity, we have established the "Ethical Corporate Management Best Practice Principles" and the "Code of Ethical Conduct," which have been approved by the Board of Directors. We require all colleagues to clearly understand and comply with the company's integrity management policies. The company has also set forth the "Work Regulations," which explicitly state that all employees must conduct themselves with integrity, refraining from accepting bribes, improper hospitality, inappropriate benefits, assets of unclear origin, engaging in inappropriate exchanges of benefits, or accepting kickbacks to avoid personal gain that may harm the company's legitimate rights and interests.

Before establishing external business relationships, company will first evaluate the counterparty's compliance with laws and whether there have been any illegal incidents, the existence and implementation of their integrity management policies, any records of dishonest behavior, legal disputes, or news incidents. External contracts signed must include confidentiality clauses, protection of intellectual property rights, trademarks, and other related clauses. The company always conducts all business activities in a fair and honest manner.

Company has established the "Corporate Sustainability Promotion Team", composed of the general manager office and various departmental units, with the general manager serving as the convener. Based on the responsibilities and scope of each unit, the task force assists the Board of Directors and management in formulating and supervising the implementation of integrity management policies and preventive measures. Additionally, the task force reports to the Board of Directors in the fourth quarter of each year.

Company explains the policies for preventing conflicts of interest and the situations to avoid in its "Code of Ethical Conduct," along with various judgment criteria. It requires relevant personnel to proactively avoid conflicts of interest and instructs colleagues to report to their immediate supervisor or the HR department with detailed explanations if they become aware of such situations involving others or if they face similar circumstances themselves.

Based on the principles of integrity management, The company conducts an annual self-assessment of the effectiveness of the design and implementation of the internal control system. Each unit completes an internal control self-assessment questionnaire, which is then reviewed by the audit unit. This serves as the basis for the Board of Directors to evaluate the effectiveness of internal controls and issue the internal control statement.

In daily operations, company places great importance on ensuring that all employees adhere to principles of integrity. Internal training courses are planned to promote the "Principles of Job Integrity," emphasizing the need to perform duties with honesty and in compliance with relevant legal responsibilities. The courses also cover the "Trade Secrets Act," explaining the company's internal data confidentiality policies and their importance, and "Insider Trading Advocacy," promoting the stipulations of Article 157-1 of the Securities and Exchange Act, which prohibits trading the company's securities before the announcement of significant information. The aforementioned courses total 3 hours and have 31 participants.

Information Security

Information security and the protection of confidential information are commitments we make to our customers, partners, and investors. Enhancing cybersecurity resilience and management mechanisms is our top priority. Groundhog

Technologies has appointed a dedicated information security officer responsible for planning and coordinating security strategies, promoting cybersecurity risk assessments, improving technical security measures, and enhancing protective monitoring effectiveness. In addition to the quarterly cybersecurity meetings, we regularly review information security policies to ensure the effectiveness of its control measures and reports the implementation status to the Board of Directors in the fourth quarter of each year.

Implementing Information Security Systems

The company has established internal control systems such as the "Computerized Information System Cycle," the "Cyber Security Management Act," and the "Information Security Incident Reporting and Response Procedures." In accordance with the "Guidelines for Cyber Security Control of TWSE/TPEx Listed Companies," an information security promotion organization has been set up. System security is strengthened through both management and technical controls. Additionally, by providing education and training as well as regular security awareness programs, employees' security awareness is heightened, integrating information security into daily development and maintenance operations, and fostering a security-based culture. In 2023, we achieved 45 hours of educational training for new employees, providing 6 different types of security awareness materials for self-study.

Enhancing Cybersecurity Protection

The company conducts risk assessments regularly, identifying potential cybersecurity risks for core systems and business operations, analyzing their impact on confidentiality, integrity, and availability, and implementing corresponding cybersecurity protection enhancements. Additionally, we comply with relevant regulations to control the physical environment of data centers, reinforce server security, provide a dedicated environment for personnel handling sensitive data, and strictly control access permissions and data input/output to maintain the company's operational reputation.

Reducing Operational Risks

We have developed a disaster recovery plan for core businesses and regularly conduct disaster recovery drills in accordance with the "Computerized Information System Cycle - System Recovery Control Operations" guidelines. The drill content includes core business backup measures, personnel responsibilities, emergency response procedures, and resource allocation to minimize the impact on the company when facing unexpected risks. This year, we have completed 2 system continuity drills, verifying the effectiveness of the business continuity plan. Additionally, to enhance the protective capabilities of our employees, we regularly conduct social engineering drills simulating emerging threat techniques. This year, 432 personnel participated in these drills, and we conducted three cyber threats protection training courses, effectively reducing operational risks.

Results of Information Security Measures Promotion

The company's information security policy is centered on the above three key points of "implementing information security systems, enhancing cybersecurity protection, and reducing operational risks". In 2023, no major deficiencies were found in external audits and internal information security audits, and no information security incidents such as information security violations, customer information leaks or fines occurred. In addition, the number of complaints resulting in judicial action, whether from third parties or competent authorities, was zero.

Risk Management

By establishing, implementing and maintaining a proactive risk management mechanism, we continuously monitor internal and external issues and environmental changes, implement operational impact analysis, and develop the ability to effectively and flexibly respond to relevant challenges. We regularly self-examine and continuously improve the company's resilience to achieve operational success. Continuous commitment to protect the best rights and interests of customers and stakeholders. The following reports the company's identified risk issues, assessments and strategic measures.

Environmental Protection and Conservation

The company's main business is the development and sales of software platforms and is not engaged in production and manufacturing. In terms of improving energy efficiency, we promote turning off unnecessary lights during lunch breaks, setting the air conditioner at a temperature above 26°C in summer, and unplugging unnecessary electrical appliances during consecutive long holidays to reduce standby power consumption. In terms of the air condition planning, each conference room uses a separate air-conditioning controller to reduce electricity consumption; the products or services provided by company to customers do not use packaging materials. We continue to promote resource recycling and classification. We procure toilet paper and hand towels made from recycled pulp are supplied to colleagues. By reusing waste paper and reusing supplier packaging boxes, we extend the product life cycle, improve resource usage efficiency, and strive to reduce environmental impact.

Climate Change

The company's main business is the development and sales of software platforms. It is not engaged in production and manufacturing. Therefore, there is no production of industrial wastewater, industrial waste, air pollution and other environmental polluting substances, and there is no violation of environmental protection regulations. Therefore, climate change has no obvious impact on the company now and in the future. There are no obvious potential risks.

Due to the potential opportunities of climate change for company now and in the future, climate change may lead to natural disasters caused by severe weather changes in a short period of time, which will increase the risk of engineers from customers in the telecommunications industry conducting mobile network signal road tests (Drive Tests). Encourage customers in the telecom industry to accelerate the use of our network optimization services in order to reduce the need for mobile network signal road testing and decline risk costs.

Workplace Safety

Based on the certified ISO45001:2018 standards (the scope of the certification is the company) and the Occupational Safety and Health Law, the company has formulated the "Safety and Health Work Code" to construct the planning, implementation, evaluation and improvement of the occupational health and safety management system. So, we can improve the process.

In accordance with the Occupational Safety and Health Law and its implementation rules, "Workplace Sexual Harassment Prevention and Control Measures", "Human Sexual Hazard Prevention Plan", "Unlawful Infringement Prevention Plan during the Performance of Duties", and "Abnormal Workload-Promoted Disease Prevention Plan" are formulated to Promote employee health and safety. Provide group insurance, establish dedicated lactation rooms for female employees, provide regular health examinations for current employees and their families, and sign on-site health promotion service contracts with specially appointed medical institutions. Nurses will come to the company to provide health consulting services to employees twice a month. Doctors came to the company twice to provide employees with health examination data analysis suggestions and personal health consultations, and implemented flexible working hours and a work-from-home system.

Providing a safe and healthy working environment for employees is the core value that company adheres to. The company implements regular fire safety inspections every year in accordance with the provisions of the Fire Law, and conducts fire self-defense training and drills for employees twice a year; it cooperates with the building management center in accordance with the provisions of the Construction Management Law, Public safety inspections of buildings are conducted every two years to allow employees to train themselves to deal with disasters and prepare sufficient relevant knowledge. Company introduces on-site health promotion services by medical staff. Nurses come to the office twice a month and doctors twice a year to provide health education and consultation services to colleagues. As of the end of December 2023, no occupational disaster cases had occurred. Each month, the electronic platform system automatically reminds

colleagues on their service expiration anniversary of their unused vacation hours to encourage colleagues to take vacations.

To sum up, the company has established comprehensive regulations to safeguard the rights and interests of employees, and regularly reviews and improves various welfare measures to ensure the highest protection of employees' rights and interests.

Product Safety

The company has obtained the ISO9001:2015 quality management system certification and complies with relevant government regulations and industry standards to ensure the quality of the company's products and services. The marketing and labeling of products and services comply with relevant laws and international standards, and the "Integrity Business Code" and "Integrity Business Operation Procedures and Conduct Guidelines" are formulated to clearly prevent products or services from harming stakeholders. In product design, we provide relevant designs to maintain customer privacy, and formulate "Personal Data Protection Management Measures" to regulate in compliance with the Personal Data Protection Law and the EU's General Data Protection Regulation (GDPR).

Social and Legal Compliance

By establishing a corporate governance organization and implementing internal control mechanisms, we ensure that all personnel and operations of the company comply with relevant laws and regulations.

Stakeholders

The company has established a "Stakeholder Area" and a "Corporate Sustainability Area" on the official website. The former allows stakeholders to find the corresponding liaison or express their opinions to the Audit Committee via email; the latter details the company's corporate governance sustainability policies and specific promotion deeds provide stakeholders with information on the relevant concepts and latest developments of the company's corporate sustainability promotion work. At the same time, the company establishes multiple and smooth communication channels based on the types of stakeholders, providing response methods, communication frequencies and communication channels to feedback the needs and expectations of stakeholders.

We have identified five major categories of important stakeholders, and the report is one of the communication channels. In addition, we also use Chinese and English websites to allow domestic and foreign stakeholders to understand the latest developments of the company.

All stakeholders can use e-mail, telephone, or fax to contact the responsible personnel for various communication issues. We listed the important issues of concern to each stakeholder, how we respond, the frequency of communication with each other, and the contact information of each responsible person.

Stakeholders	Key issues of concern	Communication Method	Frequency	Channel
Customers	• Integrity operation • Legal compliance • Risk management • Innovation management • Information security	• Telephone / Fax • E-mail • Business meeting • Company website	• Instant contact • Instant contact • Aperiodic • Instant updates	Mr. Hsieh connectsales@ghtinc.com
Suppliers	• Integrity operation • Legal compliance • Occupational safety and health	• Telephone / Fax • E-mail • Company website	• Instant contact • Instant contact • Instant updates	Mr. Liu 02-83691018 #112

Stakeholders	Key issues of concern	Communication Method	Frequency	Channel
Shareholders / Investors	• Corporate governance • Financial performance • Legal compliance • Risk management	• Shareholders meeting • Investor conferences • Company website • MOPS	• Annually • Aperiodic • Instant updates • Instant updates	Mr. Wu ir@ghtinc.com
Employees	• Talent cultivation and career development • Talent attraction and retention • Legal compliance • Integrity operation	• Labor-management meeting • Monthly meeting • Suggestion box	• Quarterly • Monthly • Aperiodic	Miss Hong ghthr@ghtinc.com
Government Agencies	• Integrity operation • Legal compliance • Intellectual property right management • Human rights equality	• Regular reporting • Issuing directives • Official correspondence • Advocacy meetings, public Hearings	• Monthly • Aperiodic • Aperiodic • Aperiodic	Ms. Li legal@ghtinc.com

Intellectual Property Management

Groundhog attaches great importance to the management of intellectual property capital. In order to maintain R&D resources, innovation momentum, and enhance competitive advantages, it establishes an intellectual property management plan and combines operational goals and intellectual property strategies to effectively carry out intellectual property layout and protection, and refined risk control ability that can strengthen the company's competitiveness.

Patent

Groundhog fully understands the industrial patent approval situation and market development trends. At internal management aspect, we encourage employees to maintain the momentum of creative inventions. Through proposal awards, data analysis, and project meeting discussions, we outline an innovative and dynamic corporate culture. In the process, the R&D team record the development process in detail and save relevant records. From patent search, design of protected subject matter and scope, specification writing, application strategy, defense and appeal, etc., all are carried out in accordance with standard procedures, and patent firms are requested to assist with related matters. As date of 2023 year end, it has a total of 38 patent certificates have been obtained, and 5 more are in the process of application.

Area	Patents Obtained	In Process Application
Taiwan	8	2
US	16	1
UK	4	0
EU	6	1
Others	4	1
Total	**38**	**5**

Trademark

We understand that trademarks are a symbol of the value of products and services. We consolidate our brand image through a strict and systematic trademark management system and apply for trademark registration according to business development. The company has established a new standard process for trademark applications and filed three trademark applications in 2023.

Intellectual property protection

In order to protect business secrets and confidential information, we have established and implemented protective measures. The employment contract has clearly stipulated the scope of confidential information and confidentiality obligations. Each employee is equipped with an access control card with access rights. Visitors must register their ID and be accompanied by employees throughout the visiting process. Computer equipment must be logged in with employees'

personal accounts and passwords for identification. Access restrictions are set for patents under application and expected to be applied. The information security of intellectual property is ensured through the above control mechanisms. In addition to maintaining competitive advantages, we also protect the rights and interests of customers.

Regular education and training

Through promoting intellectual property management policies and relevant regulations of the Trade Secrets Act to employees via internal education and training and emails, employees must take an online test after participating in the education and training.

Implementation Status

The company has formulated the "Intellectual Property Rights Management Measures" and regularly reports the implementation status of intellectual property management to the Board of Directors in the fourth quarter of each year. The implementation status in 2023 is as follows:

  I. Intellectual property management personnel regularly maintain the "Intellectual Property List" and keep the certificates in a register record.
 II. Two patent applications were approved in 2023, and a total of 38 patents were held.
III. Two new patent applications were filed in 2023.
 IV. Inventory of patent certificates has been checked.

Supplier Management

Groundhog Technologies strives to improve the development of environmental sustainability and has always set an example for environmental protection. At the same time, it has also extended this principle to its suppliers. It is hoped that suppliers can pursue growth while also taking into account the sustainable development of environment. We also require suppliers to use recycled materials, reduce packaging materials, and decrease the use of cartons, whether in the factory or during logistics and transportation. We have formulated the "Supplier Sustainability Management Policy", which stipulates that suppliers must continue to promote various issues such as environmental protection, labor rights, safety, health, sustainable development, etc., and requires new suppliers to sign the "Supplier ESG" Commitment Letter" and "Supplier Code of Ethical Conduct"; for existing suppliers, the "Supplier ESG Self-Assessment Questionnaire" is issued every year to conduct supplier sustainability scoring operations. If the evaluation results of existing suppliers are not good, we will provide counseling and ask for improvement. Regardless of whether the suppliers are old or new, the company requires them to meet the requirements of sustainable operations in terms of occupational safety and health, labor rights, honest management, environmental protection, social responsibility and feedback, and comply with relevant laws and regulations.

Environment

Groundhog is committed to transform company and industry for facing climate change.

We are technology-based to reduce impact on the environment, and through partnerships we upgrade the level of stakeholders and move towards a sustainable future together.
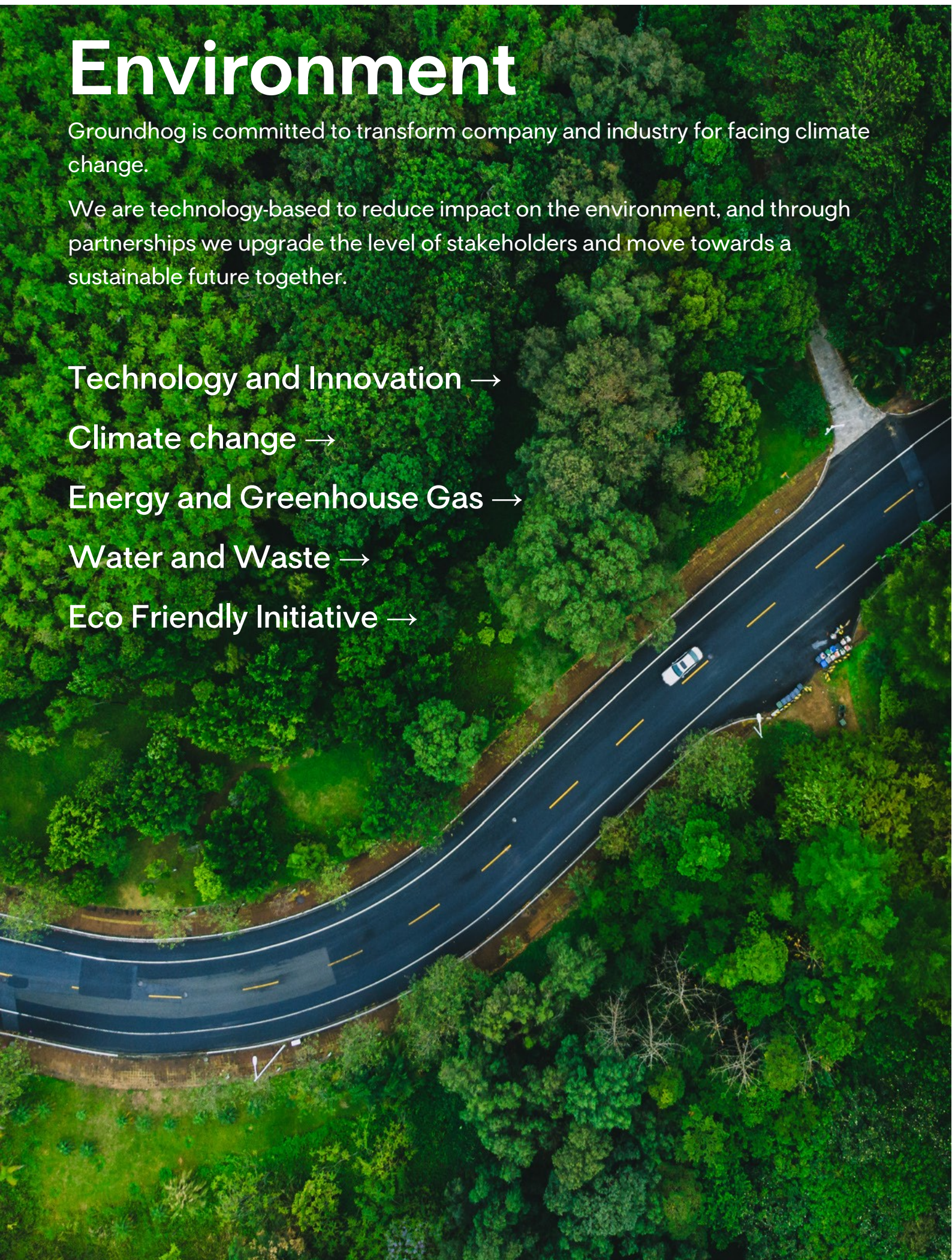
Technology and Innovation →

Climate change →

Energy and Greenhouse Gas →

Water and Waste →

Eco Friendly Initiative →

Technology and Innovation

When the telecom operators' service scope comprises of several technologies (for example: 4G LTE, 5G NR), different technologies and frequency bands have distinct coverage areas and patters. It is important to find a compromise between correctly deploying new base station while avoiding coverage wholes and high construction costs. Our background of expertise in telecommunications and in the software, development can help telecom operators to tackle this challenge by helping them in achieving best network coverage in the most cost-efficient manner.

The base station deployment process consumes electricity, fossil fuels and water. While operational base station consumes electricity and thus it increases carbon emissions. In order to improve wireless network coverage and wireless radio frequency performance, traditional methods of field testing and drive testing are employed which increases carbon emissions even further.

Our software collects layer 3 signaling trace logs from base stations. By utilizing big data and AI methods our telecom experts have designed software that can analyze L3 logs and help telecom operators to optimize their networks, eliminate problems and assist during daily activities. Optimizing network configurations by ways of replacing, merging or reducing base stations, can drastically decrease energy consumptions and help operators to fulfill their environmental conservation responsibilities. As global citizens we use the following three major methods to help customers achieve the corporate sustainable business goals of energy conservation, carbon reduction, and environmental protection:

Accurate deployment planning

We analyze network traffic and coverage patterns of each base station and help operators to design high quality network by utilizing minimum number of base stations. By reducing the number of network elements telecom operators can cutback energy consumption and carbon emissions and thus achieve environment protection goals.

When base station is deployed it requires verification testing. Base station can go on air and provide network services to end users only after making sure that all required key performance indicators are met. This verification process entails on site presence of an engineer who is responsible for executing testing procedures. Our software provides alternative method of automatically collecting needed data, analyzing it and providing verification results. This method has several benefits:

I. Non-stop 24/7 data collection gives ability to garner vast amount of data compared to just a single site visit by engineer. Availability of larger monitoring data samples can provide more precise verification results.

II. Drive test (or on-site test) is limited by the specific roads or locations, while automated data collection covers all adjacent areas and is not limited to some particular roads or locations.

III. The cost of automatic data collection is much lower than that of on-site testing, which is not only reducing labor costs, but also is cutting carbon emissions to zero because there is no need for transportation.

Automation of network optimization and analysis

Our product considerably reduces or even completely eliminates the need for dispatching manpower and test equipment to the sites for traditional field testing and drive testing when performing mobile network optimization. By performing network optimization tasks using our platform, telecom operators can also achieve the environmental protection goals by saving energy consumption and reducing carbon emissions.

A drive test does not necessarily reveal network issues, such as antenna cable mismatches, throughput degradations due to increasing data volumes, or procedure failures, cancellations or rejections caused by insufficient hardware resources in the base station. However, automatic big data analysis can identify network degradation issues that are not easily noticeable at first glance. Moreover, automatic analytics deliver recommendations in order to resolve these issues, and provide telecom operators with the opportunity to adjust network configurations & settings so that large-scale network performance degradation can be avoided. As stated in "The Wealth of Nations," "Quality is free," which implies that doing things right the first time helps to avoid unnecessary expenses related to corrections or redoing the work.

Provide traffic analysis

Our software can assist in the operations of the intelligent energy-saving function of the base station. When the traffic demand is reduced or decreased to zero, the transmission signal of the base station RF module can be lowered or turned off in a timely manner, thereby achieving the environmental protection goal of energy saving and carbon reduction.

Climate Change

In the face of climate change, low-carbon energy conservation is the key to the sustainable operation of enterprises. Our products help customers improve hardware performance and achieve energy conservation and lowering carbon emission. As one of the core development priorities, the response to climate change is also the company's sustainable development for continuing to develop and promote work. The "Corporate Sustainability Promotion Team" convenes relevant departments to identify climate risk opportunities, analyze short, medium and long-term risk projects, and assess the financial impacts of risks & opportunities. The Board of Directors is the management organization that actually oversees the company's climate change risks and opportunities. Scenario analysis, response strategy formulation, goal achievement and other matters related to climate change are planned and integrated by the company management and reported to the Board of Directors.

Risks and chances

At present, short, medium and long-term risks and opportunities of climate have been identified, and their impacts on finance, strategy and business levels:

Short-term risks: Rising domestic electricity prices will lead to higher related operating costs.

Medium-term risks: Possible losses from operational interruptions due to extreme weather events such as natural disasters.

Long-term risk: Customers changing their behavior as a result of climate change.

Facets	Impacts
Finance	Risks - increased operating costs and impact on financial performance. Opportunities - expand new business to potential customers and increase revenue.
Strategy	The company continues to promote conservation of electricity use to its employees. On the one hand, it saves energy and reduces greenhouse gas emissions. On the other hand, it reduces the impact of future increases in electricity prices on the company's operating expenses.
Business	For target customers in telecommunications companies and related industries, it is emphasized that the company's products can bring benefits in energy saving, carbon reduction, and cost saving, so as to expand business reach and further strive for business opportunities.

Extreme climate

Extreme weather events such as severe typhoons and large floods may be accompanied by power outages, traffic interruptions and other accidents, interrupting the company's operations, causing personnel to be unable to work in the office normally, and shutting down the computer rooms. These events have small chance to cause company's revenue loss, also there no significant impacts on finance aspect. In addition, the impact of rising average temperatures and rising sea levels on the location of the company's offices is low.

Financial impact of transformation initiatives

The company's products themselves are developed to help customers save energy and reduce carbon. The chance of the products being listed as the subject of carbon tax at home and abroad is not high. The transformation action is more inclined to the use of carbon offsets or renewable energy certificates to reduce the scope 2 emission. indirect emissions from energy use. After comprehensive analysis, the financial impact of the transformation actions is not significant.

Energy and Greenhouse Gas

Energy management

Our main business is the development and sales of software platforms. We did not engage in production and manufacturing. The electricity consumption is mainly contributed from public electricity consumption sharing in office buildings. Although it is difficult to effectively control, we still work hard to save energy consumption and reduce operating expenses.

> Energy Management Goal →
>
> **1% reduction in unit revenue electricity consumption per year**

In improving in terms of energy efficiency, The company's office promotes the principle of setting air conditioning above 26 degrees Celsius in summer, turning off unnecessary lights during lunch breaks in applicable departments, shutting down personal computers during non-working hours and other mechanisms to reduce standby power consumption, and encouraging more walking up and down stairs to reduce elevator electricity consumption, turn off the lights, air conditioners and TV screens in the conference room after the meeting, and set the water dispenser to enter sleep mode during off-peak hours to reduce electricity consumption. In terms of air conditioning system planning, each conference room uses a separate air conditioning controller to reduce power waste.

Year	Power Usage	Usage per Revenue Unit*	YoY
2023	268,217 kWh	722.59 kWh	**-6.38%**
2022	241,482 kWh	771.81 kWh	

* Revenue Unit: 1 million NTD (New Taiwan Dollars)

In 2023, following the lifting of COVID-19 restrictions, employees have largely returned to pre-pandemic office routines. The overall decrease in electricity consumption is attributed to the effective implementation of various energy-saving measures. The electricity usage per million New Taiwan Dollars of revenue in 2023 was 722.59 kWh, a 6.38% reduction compared to 2022.

Greenhouse Gas Management

The Greenhouse Gas Protocol defines the scopes of greenhouse gas emission sources as follows:

> Greenhouse Gas Management Goal →
>
> **1% reduction in Greenhouse Gas emissions intensity per year**

Scope 1:   Emission sources owned or controlled by the company, such as emissions from combustion of owned or controlled boilers, furnaces, vehicles, etc., and emissions from chemical production

processes in owned or controlled process equipment.

Scope 2:   Indirect emissions from energy use of purchased electricity, steam, heat or cold sources for the company's own use.

Scope 3:   All indirect emissions that do not fall into Scope 2, emissions generated by upstream suppliers and downstream customers in the company's value chain, such as the mining and production of outsourced raw materials, the transportation of outsourced fuel, customers' use of products or services sold by the company. Emissions from leased assets, investments and commodities that are partially or fully owned or controlled by the company outside the company's organizational boundaries.

The company's main business is the development and sales of software platforms. It has no production process emissions and no direct emission sources in Scope 1. As for Scope 2, company's indirect emissions generated via electricity consumption offered by Taiwan Power Company. That is bought by the building lord, and building admin office allocates the electricity consumption to the company. In addition, there are no other indirect emissions from energy use. Besides, we are actively planning for the greenhouse gas inventory of Scope 3.

Year	Scope 1 Emission	Scope 2 Emission *	GHG Emission Intensity *	YoY
2023	0	132.4992	0.3570	**-6.57%**
2022	0	119.5336	0.3820	

* Based on the annual electricity emission factors announced by the Bureau of Energy, with the emission amount measured in metric tons of CO_2e. The Greenhouse Gas (GHG) emission intensity is expressed in tCO_2e/NT\$1 million.

We carry out publicity to employees to improve their awareness of energy conservation. We recommend that colleagues use public transportation or take taxi together when traveling for business domestically. When choosing to stay in a hotel on a business trip abroad, try not to rent a car and find ways to walk or share transportation. It uses energy-saving and carbon-reducing transportation methods such as furniture and public transportation to reach the accommodation point where the customer is located. Renewable energy, the purchase of carbon rights or related trading methods and offset mechanisms are also available tools in our research to reduce greenhouse gas emissions.
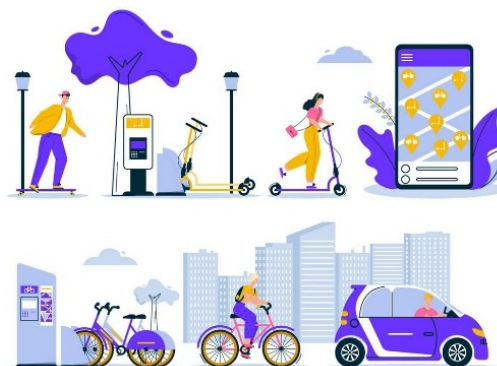
The greenhouse gas emission intensity metric in 2023 is 0.3570 tons CO_2e/NT\$1 million, a decrease of 6.57% compared with 2022.

Water and Waste

Water Management

Cherishing water and protecting water resources is one of the important responsibilities of Groundhog. During the operation, the water source comes from the Taipei City Water Utility Department. We do not use groundwater or other sources. We only produce general domestic sewage without generating any business wastewater.

Water Management Goal →

1% reduction in water usage per capita per year

We continue to promote the concept of water conservation and turning off water to our employees. To achieve water management goals, here are what to do:

I.   Educate employees on the concept of water conservation and the practical actions of turning off water.

II. Remind employees that when they find damage to water supply equipment, they should immediately report it to the general affairs unit, contact the manufacturer and the building management center to avoid long-term waste of water.

III. Regular inspection and maintenance of drinking water dispensers, replacement of filter cartridge, and immediate reporting of repairs to the manufacturer in case of malfunctions can improve the water supply efficiency of drinking water equipment.

Work-from-home measures still be implemented in 2022, work and water usage patterns are relatively special. After the COVID-19 epidemic, colleagues have developed the habit of washing hands and cleaning frequently. In 2023, employees' work generally return to the normal state before the epidemic, headcount of employees has increased, so both cause aggregate water consumption and per capita water consumption have increased compared to the previous year. The per capita water consumption in 2023 will be 8.39 degrees, an increase of 4.35% from 2022.

Year	Water Usage	Year-end Staff Count	Usage per Capita*	YoY
2023	1,191	142	8.39	
				4.35%
2022	1,061	132	8.04	

*Water usage unit: tons

Waste management

Company produces general waste, which comes from daily activities and is divided into general waste (including kitchen waste) and resource recycling ones. Colleagues place garbage in the garbage classification storage area daily. Cleaners from the building property management company collect and store the garbage floor by floor, and then transport it to the incineration plant for processing by qualified waste removal operators. The building admin office signs a contract with a waste removal company to carry out the centralized removal of waste in the entire building. There will be no additional charges or deductions within the weight variation range of 7 metric tons per month plus or minus 20%. Based on the building waste removal model, the average daily waste per floor is less than 30 kgs. The building management center has not yet measured the weight of waste from tenants on each floor. Company only rents 1 floor of the 12-floor building. Daily output is not significant. At the same time, the "Greenhouse Gas and Waste Management Measures" have been formulated to clearly state the management policies and measures for water conservation, energy conservation, and waste reduction, and also list the annual water and electricity conservation goals.

Eco Friendly Initiative

Company's main business is the development and sales of software platforms. It is not engaged in production and manufacturing and is not suitable for general environmental management system verification. It does not generate or discharge business waste, and the total weight of business litter is zero. The office only discharges general waste, and the litter disposal method is in accordance with relevant government regulations. Greenhouse gas and water consumption inventories are carried out annually and regularly, with the goal of reducing carbon dioxide emissions, water consumption and the total weight of waste year by year to implement environmental protection. We continue to promote resource recycling and classification internally, and are committed to extending the product life cycle and reducing the carbon footprint of waste disposal through repairing equipment or replacing components to extend service life, reusing waste paper, and reusing supplier packaging boxes. We take each possible measures to cut down carbon emission via decreasing waste processing volume.

Social

We respect every team member and recognize that each one's unique background and perspective brings value to our business, which is why we strive to create an exciting culture where team members can thrive.
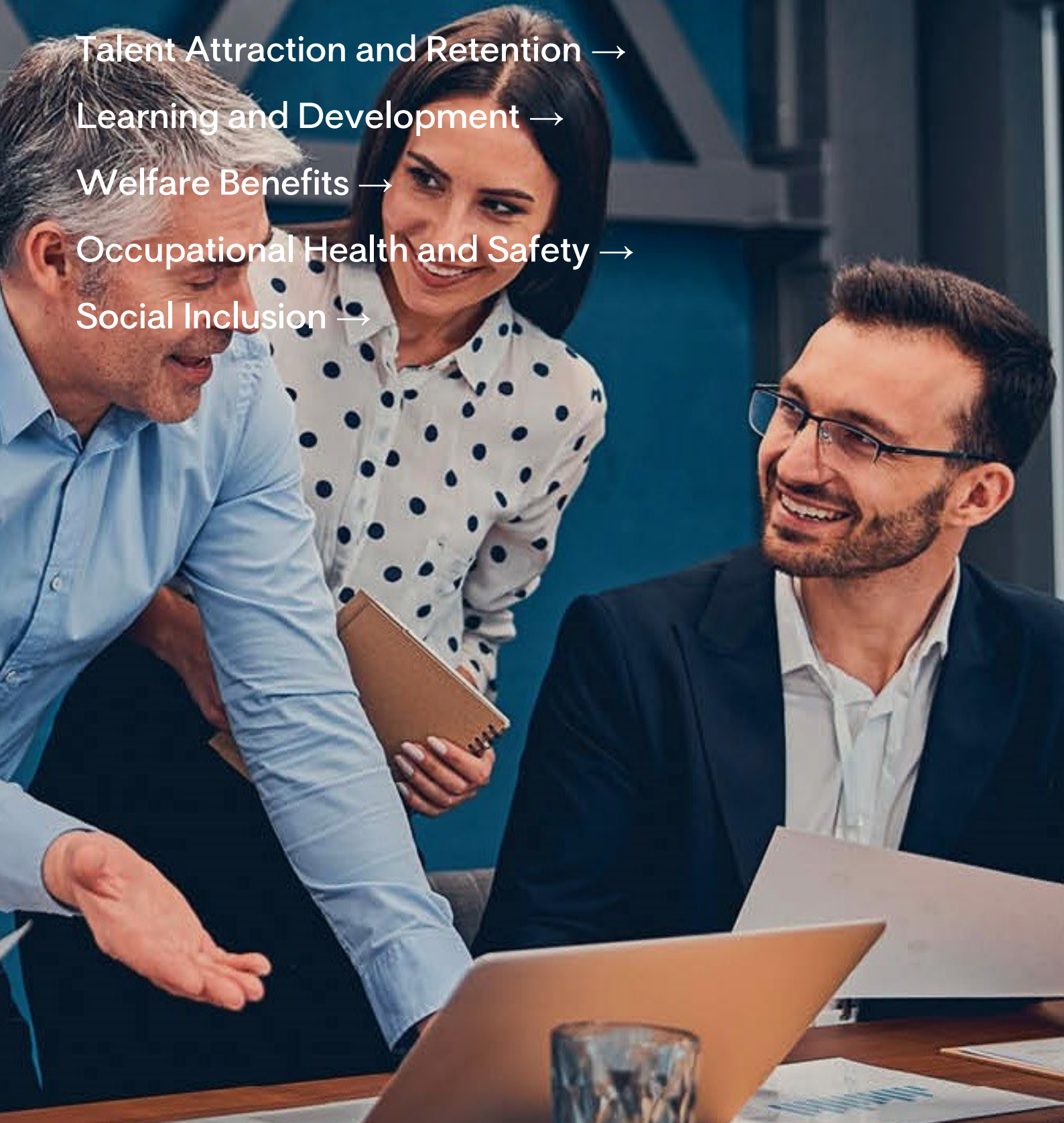
Talent Attraction and Retention →

Learning and Development →

Welfare Benefits →

Occupational Health and Safety →

Social Inclusion →

Talent Attraction and Retention

In response to the company's business and global development, Groundhog Technologies actively recruits and cultivates elite talents from various countries to support the company's strategic layout. In addition to offering salary levels that are better than those of ordinary Taiwanese companies, we also spare no effort in retaining and promoting outstanding talents. Software talents have better capabilities than traditional industry employees in terms of their own ability improvement, career planning, and cross-border residence and they also have more aspects of thinking. We are committed to creating an equal workplace environment and possessing diverse talents to promote cross-border cultural exchanges and cultivate the international perspective of our colleagues.

Attract global talent

As an international software benchmark company, we currently have more than 15% of foreign software talents. Regarding the issue of permanent residence for foreign employees, we will proactively provide the resources needed for the application. After assessing the company's requirements, we will also provide international talents with the opportunity to work at home to complete their tasks based on the work status of the foreign employees, so as to satisfy the needs as much as possible. The necessities of life in a foreign place make it possible for them to have no worries.

The company tries its best to take care of the minds and lives of multinational talents at all aspects. This also allows the company to have a more international perspective in its employee mix, making talents feel warm. So, we can attract software talents in the world who are willing to join in and love to create a future with Groundhog Technologies.

The rise of female in technology industry

Among software companies that are generally dominated by male, the company is one of the few companies that strives to increase the proportion of female employees, and is committed to hoping that in addition to men, women can also be re-employed in the software industry. The company strives to cultivate female mid-level officers. In addition to arranging various courses for professional training, Company will also provide opportunities to put female officers into practice and not just limited to theory. We consider the family-oriented characteristics of female managers and would approve their family care leave. If there are special reasons or due to events importance, they will also be able to apply for working at home as appropriate.

Since the company's inception, female managers have only accounted for 10%, but now female managers account for 30%. Although this is not yet a majority, the company highly values the meticulous and caring nature of female managers. Consequently, when they pass various assessments, they are promoted with salaries not lower than those of male managers. In the future, the company will continue to strive to cultivate more women to become key figures in the company's future.

Gender	Position	Salary Ratio
Female	Supervisor	172%
	Staff	72%
Male	Supervisor	168%
	Staff	74%

* Average salary per gender is considered 100%

Statistical information on the salary ratio of the company's employment per gender verses positions in 2023 is presented here on the right.

Performance Evaluation

Starting in December each year, managers prepare for performance evaluations with their staffs. By around following February, the evaluations are basically completed, and one-on-one meetings with employees would be begin. During these meetings, the previous year's work results are reviewed, and development plans for the coming year are also established. In each March, based on the evaluation results, employees may be promoted or receive salary adjustments.

Through one-on-one inspection and outlook between supervisors and team members, employees' development directions can be connected with the company's plans, and an effective and feasible career competency training blueprint can be jointly outlined.

Employee turnover

Excluding the impact of declining birth rates in recent years and considering Taiwan's status as a technology hub with an existing scarcity of software talent, local gambling industry also entered the market with high salaries around 2022, leading to a significant loss of talent for the company that year.

Subsequently, to remain competitive in job market, the company has invested more effort in talent development and strived to optimize the benefits system by referencing market standards as much as possible. Using the common market formula for calculating turnover rate: the number of employees who left / (year-end number of employees + number of employees who resigned), the company successfully reduced its turnover rate from 21% in 2022 to 15% in 2023.

Information on the company's turnover rates for the past 2 years is on the right.

Year	Turnover Rate
2022	172%
2023	74%

Learning and Development

To promote the company's sustainable operation and continuous growth, we are committed to cultivating exceptional talent and professional skills. We integrate our educational training programs closely with the company's sustainability development strategy, providing appropriate internal and external training and learning resources for various levels, departments, and all employees and supervisors. This aims to enhance the professional abilities of managers and crews, further assisting them in achieving their personal career development goals. By doing so, we aim to position the company as an industry leader and achieve the goals of sustainable operation and long-term growth.

The company arranges competency training for all levels of managers and employees, including quarterly training for new hires, occasional professional training, and at least biannual internal training for supervisors. This helps employees continue to learn and grow in diverse ways. Additionally, based on the needs raised by various supervisors or crews, relevant personnel are sent to external professional institutions for training on key knowledge or skills. The company's training statistics for 2023 is shown on the right.

Statistics	Count
Trainings Held	96 sessions
Staff Attendance	478 people
Training Hours	295.5 hours

Welfare Benefits

Employees are the company's most important asset and the cornerstone of sustainable development. We consider employees as family members, thus planning comprehensive welfare and providing opportunities for self-realization are our key responsibilities. To enhance employees' sense of belonging and listen to their voices, the company holds regular labor-management meetings every quarter and has set up an anonymous suggestion box. The HR division is responsible for collecting relevant information and responding to employees' concerns monthly. An employee welfare committee, composed of staff members, is responsible for organizing company trips and annual year-end parties.

Apart from having personnel management regulations, employee performance evaluations, and work rules, the company provides the following benefits:

1. Equity plan: In January 2024, the company will apply for an initial public offering (IPO) with a cash capital increase, reserving 13.86% of the issued shares, totaling 415,000 shares, for employees to subscribe, thereby fostering unity between labor and management and attracting and retaining outstanding talent.

2. Compensation and employee bonuses: According to the company's articles of association, if the company makes a profit for the year, no less than 5% should be allocated as employee compensation. This includes employees of affiliated companies who meet certain conditions, reflecting business performance in employee remuneration. The company guarantees an annual salary equivalent to 14 months (including three holiday bonuses: Dragon Boat Festival, Mid-Autumn Festival, and Chinese New Year), with additional performance bonuses based on operational conditions.

3. Salary adjustment system: Annual assessments based on actual performance be conducted, and regular external salary surveys are carried out to understand industry salary standards. Fixed salary adjustments are made every March.

4. Labor insurance, health insurance, Labor Pension Contributions, and Group Insurance: To ensure a stable life for employees after retirement, the company has established a retirement plan in accordance with the Labor Standards Act, providing retirement benefits. Details of the retirement system and its implementation are as follows:

- Old system: For employees covered by the Labor Standards Act, the company contributes 2% of the wages to a special account at the Bank of Taiwan supervised by the Labor Pension Reserve Supervisory Committee. Pension payments are based on years of service and the average wage for the six months prior to the approved retirement date to protect employees' rights.

- New system: For employees covered by the Labor Pension Act, the company contributes 6% of the total monthly salary to the employee's individual pension account. Employees who voluntarily contribute to their pension can have their voluntary contribution rate deducted from their monthly salary and transferred to their personal pension account at the Bureau of Labor Insurance.

- In addition to statutory labor and health insurance, the company also provides group comprehensive insurance, superior to the requirements of the Labor Standards Act, including cancer insurance, to ensure employees' health and share medical expenses.

5. Annual domestic / overseas travel subsidies for employees.

6. Monthly departmental meals fund allocation.

7. Annual employee physical checkup subsidy of NT$3,000 per staff, with the company covering half the cost of additional check-up items.

8. The employee welfare committee is responsible for distributing holiday vouchers, birthday gifts, and subsidies for weddings, funerals, and celebrations.

9. Club activities supporting and quarterly club activity subsidy.

10. Education and training subsidies: Quarterly internal training sessions are provided for professional needs. Employees are encouraged to engage in self-learning, with subsidies for job-related external training. Additionally, internal training and team-building activities are organized approximately every two months.

11. A variety of snacks and beverages, including free coffee are available for employees.

Occupational Health and Safety

Based on the ISO45001:2018 certification (certifying scope: the company) and the Occupational Safety and Health Act, the company has established the "Safety and Health Work Code" to create a comprehensive process for planning, implementing, evaluating, and improving the occupational health and safety management system.

In accordance with the Occupational Safety and Health Act and its implementation rules, the company has formulated the "Workplace Sexual Harassment Prevention Measures," "Human Hazard Prevention Plan," "Unlawful Intrusion Prevention Plan," and "Abnormal Workload-Induced Disease Prevention Plan" to promote employee health and safety. The company provides group insurance, sets up dedicated nursing rooms for female employees, offers regular health check-ups for employees and their families, and signs contracts with designated medical institutions to provide on-site health promotion services. These services include bi-monthly health consultations by nurses and bi-annual health check-up analysis and personal health counseling by doctors. Additionally, the company implements flexible working hours and a home working system.

Providing a safe and healthy working environment is a core value upheld by the company. According to fire safety regulations, the company conducts regular fire safety inspections annually and organizes fire safety training and drills for employees twice a year. In compliance with building management regulations and in coordination with the building management center, the company conducts a public safety inspection of the building every two years. These measures train employees in disaster response and ensure they have sufficient knowledge to handle emergencies.

The company introduces on-site health promotion services by medical personnel, with nurses providing bi-monthly health education and consultation services, and doctors offering bi-annual health check-up analysis and personal health counseling at the office. As end of December 2023, there have been no occupational hazard incidents. Additionally, an electronic platform system automatically reminds employees of their remaining leave balance on the anniversary of their service, encouraging employees to take their leave.

Social Inclusion

At Groundhog Technologies, we firmly believe that a company should not only prioritize revenue but also contribute to the sustainable development of the environment, society, and economy. During the COVID-19 pandemic, we utilized our leading technology with the highest precision in positioning among peers to complete electronic fencing. By leveraging our core AI algorithms and big data analysis technology, we assisted governments and private sectors in Taiwan, Indonesia, India, Saudi Arabia, and the UAE in their pandemic prevention efforts. Our precise positioning technology helped track movements, assist in accurate epidemiological investigations, and quarantine measures, thereby reducing the virus's spread.

In addition, through our geographic positioning technology, we have assisted in projects such as smart city planning in Saudi Arabia, infrastructure planning for the UAE World Expo, the Qatar World Cup, and crowd management for the Hajj pilgrimage in Mecca. By analyzing local telecom signaling big data and AI predictions, we can help local governments plan public transport routes and schedules before and after events, and monitor real-time crowd movements during events. Our system platform automatically sends alerts to local police agencies when overcrowding occurs, helping to prevent stampede incidents, improve the quality of life, and ensure the safety of citizens.

Using our core technology to build a sustainable society and expanding our influence as a leader in mobile data is Groundhog's mission. In addition to giving back to society through technology, we continuously focus on promoting education and culture, helping disadvantaged groups integrate into society, and fostering social harmony. Based on positioning principles, we have developed a crime tracking system that can be used for locating scam group operations, tracking fraudsters, and providing alerts for restraining order violations. Building a comprehensive social protection network to ensure societal stability and enabling people to live and work in peace is the cornerstone of our long-term development. We also hope to fulfill our social responsibility in combating fraud.

Social Good

For equal education, cultural promotion, and disadvantaged groups, Groundhog Technologies annually donates resources to public welfare activities aimed at addressing social issues. This includes donations to the "Ministry of Education School Education Savings Account," providing financial assistance to elementary and middle school students from low-income families, the "Global Action Association" to support the education of children in border areas, and the "New Taipei City Good Charity Association" to provide meals, medical, and domestic services for disadvantaged families and the elderly living alone.

In 2023, in addition to continuing our focus on equal education and disadvantaged groups, we also participated in our client's ESG project "Hand in Hand Sustainable Vanguard Team," helping to renovate school buildings in remote areas to improve learning environments. In support of women's

Year	Organization Donated
2023	• Ministry of Education School Education Savings Account • Border Action Association • Join hands with the Sustainability Vanguard Project • Breast Cancer Academic Research Foundation • New Taipei City Gonghao Charity Association, Luzhou Care Center • Buddhist Electronic Buddhist Scripture Foundation
2022	• Ministry of Education School Education Savings Account • Border Action Association • Huashan Foundation Anxin Angel Station • Join hands with the Sustainability Vanguard Project • Breast Cancer Academic Research Foundation

welfare, we donated to the "Breast Cancer Research Foundation" to enhance women's health and quality of life. Table on the right presents Groundhog's social donation activities over the past two years.

Community Development

The company is based in Taipei City. To promote local employment, in 2023, we hired six new employees registered in Taipei City, accounting for 4.23% of the total number of employees at the end of the year. The cumulative number of employees registered in Taipei City reached 35, accounting for 24.65% of the total number of employees at the end of the year.

Appendix

GRI Content Index →

GRI Content Index

GRI 1: Foundation 2021

Statement of Use: Groundhog Technologies has reported in accordance with the GRI Standards for the period January 01, 2023 – December 31, 2023.

GRI 1 used: GRI 1 Foundation 2021

Applicable GRI
Sector Standard(s):   Not applicable

GRI 2 : General Disclosures 2021

Disclosure number	GRI Disclosure Title	Corresponding Chapters / Sections
GRI 2-1	Organizational details	About Groundhog
GRI 2-2	Entities included in the organization's sustainability reporting	About This Report
GRI 2-3	Reporting period, frequency and contact point	About This Report
GRI 2-6	Activities, value chain and other business relationships	About Groundhog Our Solutions
GRI 2-7	Employees	Talent Attraction and Retention
GRI 2-9	Governance structure and composition	Governance Structure
GRI 2-10	Nomination and selection of the highest governance body	Governance Structure
GRI 2-11	Chair of the highest governance body	Governance Structure
GRI 2-12	Role of the highest governance body in overseeing the management of impacts	Governance Structure
GRI 2-13	Delegation of responsibility for managing impacts	ESG Enhancement Units
GRI 2-16	Communication of critical concerns	Stakeholders
GRI 2-17	Collective knowledge of the highest governance body	Training Status of Board Members
GRI 2-18	Evaluation of the performance of the highest governance body	Performance Evaluation of Board Members
GRI 2-19	Remuneration policies	Remuneration Committee
GRI 2-20	Process to determine remuneration	Remuneration Committee
GRI 2-22	Statement on Sustainable development strategy	Ambition and Blueprint
GRI 2-23	Policy commitments	Business Integrity
GRI 2-24	Embedding policy commitments	Business Integrity
GRI 2-25	Processes to remediate negative impacts	Business Integrity Social and Legal Compliance Risk Management Stakeholders
GRI 2-27	Compliance with laws and regulations	Social and Legal Compliance
GRI 2-29	Approach to stakeholder engagement	Stakeholders

GRI 3 : Material Topics 2021

Disclosure Number	GRI Disclosure Title	Corresponding Chapters / Sections
GRI 3-1	Process to determine material topics	Stakeholders Risk Management
GRI 3-2	List of material topics	Stakeholders Risk Management
GRI 3-3	Management of material topics	Stakeholders Risk Management

GRI 200 : Economic Series

Disclosure Number	GRI Disclosure Title	Corresponding Chapters / Sections
GRI 201: Economic Performance 2016		
GRI 201-1	Direct economic value generated and distributed	Welfare Benefits
GRI 201-2	Financial implications and other risks and opportunities due to climate change	Climate Change
GRI 201-3	Defined benefit plan obligations and other retirement plans	Welfare Benefits

GRI 300 : Environmental Series

Disclosure Number	GRI Disclosure Title	Corresponding Chapters / Sections
GRI 302: Energy 2016		
GRI 302-1	Direct economic value generated and distributed	Welfare Benefits
GRI 302-3	Financial implications and other risks and opportunities due to climate change	Climate Change
GRI 302-4	Reduction of energy consumption	Energy and Greenhouse Gas
GRI 305: Emissions 2016		
GRI 305-2	Energy indirect (Scope 2) GHG emissions	Energy and Greenhouse Gas
GRI 305-4	GHG emissions intensity	Energy and Greenhouse Gas
GRI 305-5	Reduction of GHG emissions	Energy and Greenhouse Gas

GRI 400 : Social Series

Disclosure Number	GRI Disclosure Title	Corresponding Chapters / Sections
GRI 414: Supplier Social Assessment 2016		
GRI 414-1	New suppliers that were screened using social criteria	Supplier Management