



Hilong Holding Limited*

(Incorporated in the Cayman Islands with limited liability)

Stock code: 1623

*For identification purpose only

2022 Environmental, Social and Governance Report



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About the Report

Hilong Holding Limited (the "Company") (Stock Code: 1623) hereby presents the Environmental, Social and Governance Report 2022 ("the Report") of the Company and its subsidiaries (collectively, the "Group", "Hilong" or "We"). The Report demonstrates the concepts and practices of the Group in Environmental, Social and Governance (ESG) areas to its stakeholders.

Reporting Scope

The Report primarily includes the Company and its subsidiaries. The reporting period is from January 1, 2022 to December 31, 2022 ("the Reporting Period"). The Key Performance Indicators ("KPIs") in environmental areas disclosed in the Report cover all businesses in China directly managed by the Group while the KPIs in social areas cover the Group.

Compared with *Hilong Holding Limited 2021 Environmental, Social and Governance Report* (《海隆控股有限公司 2021 年環境、社會及管治報告》), there are no material changes in the reporting scope.

Reporting Principles

The Report is prepared according to the *Environmental, Social and Governance Reporting Guide* (the "ESG Reporting Guide") in Appendix 27 to the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited. The Report complies with reporting principles below:

- "Materiality": The Group determines material ESG issues through stakeholder engagement and materiality assessment which have been disclosed in the Report.
- "Quantitative": The standards, methods and sources of emission factors used in reporting emissions and energy consumption have been disclosed.
- "Balance": The Report provides an unbiased picture of the Group's environmental and social performance.
- "Consistency": The methodology and KPIs are consistent with previous years.

Reference

In this report, the Group's subsidiary Shanghai Hilong Drill Pipe Co., Ltd. is referred to as "Shanghai Drill Pipe", Hilong Group (Shanghai) Information Technology Company is referred to as "Information Technology", Hilong Pipeline Engineering Technology Service Co., Ltd. is referred to as "Pipeline Engineering", Shanghai Tube-Cote Petroleum Pipe Coating Co., Ltd. is referred to as "Shanghai Tube-Cote" and Shenglong Oil and Gas Pipeline Inspection Technology Co., Ltd. is referred to as "Shenglong Inspection".

Report Availability

The report is available in electronic version which can be viewed on the website of the Company (www.hilonggroup.com) and the HKEX news website (www.hkexnews.hk).

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1. About Hilong

1.1 Company Brief

Hilong was established in 2002 and has been listed on the HKEX since 2011. The Group is a manufacturer of high-end oilfield equipment and a provider of comprehensive oilfield technical service. Hilong continuously considers technological innovation and internationalization as the core development strategy and takes high efficiency and market development into account. At present, the Group has established production bases and business branches in more than 40 countries and regions around the world, creating value for global customers with high-quality, high-tech and differentiated products and integrated services.

Corporate Culture

- Openness:** To be “open” is to promote a broad awareness and utilize proactive actions that are at once up-to-date
- Inclusiveness:** Willingness to complement learning from others and adoption of a modern
- Unity:** Concepts and awareness of the big picture; Unity and mutual assistance within the team
- Hilong Spirit:** Passion, Dedication, Loyalty

Hilong has undertaken horizontal development in drilling, exploitation, and transportation of oil and natural gas, as well as vertical development via industrial chains. The Group has established five core businesses: oilfield equipment, oilfield services, line pipe technology and services, offshore engineering, and new materials, realizing the integrated development of oilfield equipment products and comprehensive technical services. Based on our unique technology in oilfield equipment, we have gradually expanded our business to other fields and have established a favorable brand reputation in the domestic and international markets, with our five major businesses operating in synergy.

Business Segment	Core Business	Main Products
Oilfield Equipment	The core of this business is oil drilling tools, OCTG (Oil Country Tubular Goods) coating and hardbanding.	Drill Pipe, Heavy Weight Drill Pipe, Drill Collar, Special Drilling Tools, Drilling Tool Joint, Internal Coating for Drill Pipe

		Series, Internal Coating for Casing and Tubing, Hardbanding Wires, etc.
Oilfield Service	Focuses on providing global clients with oil technical services including onshore drilling and workover operations, well cementing, drilling fluid, and solid control services, etc.	Terrestrial Well Drilling(Workover) Services, Directional Drilling, Drilling Fluids, Pipe Management, Project Management, General Contracting Services, etc.
Line Pipe Technology and Services	Core business includes line pipe coating services, the manufacture of CRA (Corrosion Resistant Alloy) lined pipe, concrete weight coating services, pipeline engineering, pipeline inspection services and products and services of industry safety monitoring and intelligent detection in the field of oil and gas industry.	Internal and External Coating for Tube, Concrete Weight Coating of Submarine Pipeline, Anode Mounting, Bimetallic Composite Network Pipe, Internal and External Inspection for Pipeline, Petroleum Drilling Tool Inspection, Optical Fiber Sensing Products, Laser Spectrum Products, Intelligent Robot Products, etc.
Offshore Engineering	Undertakes major offshore projects including the installation of offshore structures, offshore pipe laying and repair. At the same time, it provides full-scale design, analysis, technical support and engineering consultation services for the construction and installation of offshore oil and gas upstream projects.	Offshore Pipe Laying, Installation & Heavy lifting, Offshore EPCI(Engineering Design, Procurement, Construction and Installation)Services, Ship leasing, etc.
New Materials	Focuses on manufacture of new materials for OCTG coating, pipeline coating, marine coating, and industrial protective coating, among others and provides customers with comprehensive anticorrosive solutions.	Internal Anti-corrosion Coating Products for Drill Pipe, Internal Anti-corrosion Coating Products for Oil Casing Pipe, OCTG(Oil Country Tubular Goods) Coating, Pipeline Coating, Marine Products, Industrial Protective Coating, etc.

In terms of the domestic market, after more than ten years of cultivation, the Group have established a strong strategic partnership with leading oil companies such as China National Petroleum Corporation ("CNPC"), China Petrochemical Corporation ("SINOPEC"), and China National Offshore Oil Corporation ("CNOOC"), etc. and our products are sold throughout East China and difficult-to-develop regions in West China. In terms of the international market, the Group has established a complete sales and service network in various oil-producing areas around the world, providing high-end

products and comprehensive services for international famous energy and oil service enterprises. At present, the Group's products and services have been sold to China, Southeast Asia, South Asia, Central Asia, the Middle East, Africa, North America, South America, and other countries and regions.



Domestic market map of Hilong



Global market map of Hilong

Major Overseas Customers

Royal Dutch Shell, British Petroleum Corporation, TotalEnergies, Ente Nazionale Idrocarburi, Schlumberger, Weatherford, United Energy, Petroecuador, Pakistan State Oil, Oman Oil, Petronas, Petroleum Authority of Thailand,, Pertamina, Saipem, etc.

Major Domestic Customers

CNPC

SINOPEC

CNOOC

...

Hilong strives to become an internationally competitive oilfield equipment and services provider, and has achieved many breakthroughs for customers all over the world with high-quality, high-tech, differentiated products and one-stop services.

1.2 ESG Management Structure

The Group has incorporated ESG governance into its governance and has established a three-tier ESG governance structure, which consists of the Board of Directors (the "Board"), the Management, and the ESG Working Group, to assist the Board to fully evaluate ESG risks and opportunities during the work of risk management, policy formulation, and strategic planning, ensuring that the ESG-related risks and opportunities are fully integrated into the Group's business strategy.

The Board

The highest decision-making body of ESG management, which takes full responsibility for the Group's ESG strategy and reporting.

Develops ESG management approaches and strategies, including evaluating, prioritizing, and managing material ESG-related issues and their influence on the Group' business.

Regularly reviews the Group's performance in relation to ESG objectives, examines and approves disclosures in ESG reports.



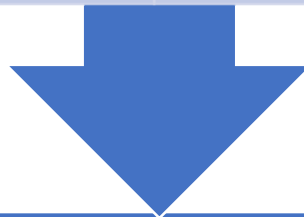
The Management

Arranges work of ESG Working Group based on the ESG management approaches and strategies established by the Board.

Reports ESG-related risks and opportunities to the Board.

Provides the Board with the annual ESG performance and annual ESG report.

Provides a confirmation to the Board on the effectiveness of related risk management and internal control systems.



ESG Working Group

Direct participation by the head of each department

Assigns special personnel to carry out daily ESG work and prepares annual ESG report.

Reports to the Management on the daily ESG performance and annual ESG report.

1.3 Statement of the Board

The Board of the Group takes overall responsibility for the Group's ESG management matters and at least review the ESG-related matters once a year, including the Group's ESG report, annual ESG performance, ESG goals formulations and progress, etc. The Board attaches great importance to ESG management and report preparation, requires the ESG report to reflect the Group's key ESG areas and actively respond to the needs of various stakeholders. The Board regularly discusses the latest developments of ESG matters so as to continuously improve the sustainable development management system of the Group. Looking forward, the Group will continue to adhere to the concept of sustainable development and actively fulfil the promise of corporate social responsibility.

1.4 Stakeholders Engagement

Aware of the importance of communication with stakeholders, Hilong has established diversified communication mechanisms to build close relationships with the Group's significant stakeholders and actively respond to their expectations and requirements for Hilong.

Stakeholders	Expectations and Requirements	Communication Mechanisms
Government and Regulators	<ul style="list-style-type: none"> • Compliance with laws and regulations • Pay taxes according to law • Support local development • Epidemics prevent and control 	<ul style="list-style-type: none"> • Daily management • Meetings • Monitoring and inspection • Policy advice • Case reporting • Internal epidemic management
Shareholders	<ul style="list-style-type: none"> • Continued development and return to shareholders • Information disclosure and investor relations 	<ul style="list-style-type: none"> • General meetings • Information disclosure • Activities promoting investor relations

	<ul style="list-style-type: none"> • Corporate governance and risk control 	
Clients	<ul style="list-style-type: none"> • High-quality products • High-quality services before and after sales 	<ul style="list-style-type: none"> • Signing of contract • Business dealings
Employees	<ul style="list-style-type: none"> • Remuneration and benefits • Good work environment and development platforms • Equal opportunities for promotion and development • Epidemics management and control 	<ul style="list-style-type: none"> • Employee training • Employee activities and employee care • Performance Management • Corporate internal publications • Care for staff health • Prevention and control of epidemic
Media	<ul style="list-style-type: none"> • Performance of corporate social responsibility • Having a good knowledge of corporate significant events, activities and initiatives 	<ul style="list-style-type: none"> • Business interview • Promotion of corporate culture • Theme activities
Partners	<ul style="list-style-type: none"> • Keep promises • Equal, open, and fair procurement • Mutual benefit development 	<ul style="list-style-type: none"> • Negotiation and communication • Supplier assessment and evaluations • Open bidding and tendering • Communication and visitation
Community and Society	<ul style="list-style-type: none"> • Promote urban development 	<ul style="list-style-type: none"> • Industry-university-institute linkages

	<ul style="list-style-type: none"> • Raise public awareness • Promote development of harmonious community 	<ul style="list-style-type: none"> • Establishment of education base • Community activities
Environment	<ul style="list-style-type: none"> • Promote environmental protection • Protect eco-balance 	<ul style="list-style-type: none"> • Emission under standard thresholds • Energy saving and emission reduction

1.5 Materiality Assessment

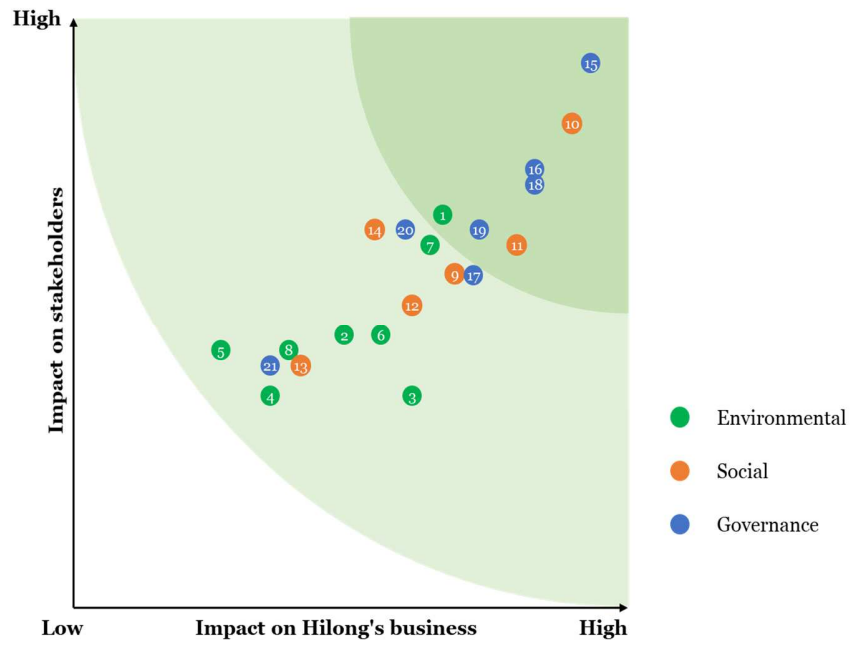
In order to understand the impact of different sustainable development topics on the Group and its stakeholders, the Group regularly conducts materiality assessment based on ESG-related standards, benchmarking against peers, expert analysis, and questionnaires collected from both internal and external stakeholders. In this way, we identified and evaluated our important material ESG topics. The specific process is as follows:

- **Step 1 - Identify ESG topics:** Hilong identified ESG topics relevant to the Group in accordance with the requirements of the ESG Reporting Guide, and in line with peer benchmarking and expert analysis.
- **Step 2 - Determine the materiality:** In the form of an online questionnaire, Hilong invited significant internal and external stakeholders to evaluate the materiality of those identified ESG topics. Based on the collected valid questionnaires, Hilong assessed the materiality of ESG topics from the perspectives of "impact on business" and "impact on stakeholders", and then created a materiality assessment matrix.

Step 3 - Verify the assessment results: The Management and the ESG Working Group reviewed and confirmed the assessment results.

During the Reporting Period, the Group carefully reviewed the ESG topics and corresponding materiality assessment results. As there are no significant changes in the Group's business and external environment, we decide to use last year's assessment results of ESG topics for this year. The specific ESG materiality matrix is as follows:

Materiality	No.	ESG issue
High	15	Product quality
	10	Safe production
	16	Customer service
	18	Product innovation
	11	Occupational health
	19	Partners
Medium	1	Energy saving
	17	Property right protection
	9	Legal employment
	7	Environmental emergency management
	20	Anti-corruption
	12	Employee training
	14	Prohibition of child labor and forced labor
	3	Waste-water and waste gas
	6	Solid waste
	2	Water conservation
	13	Employee activity
	8	Noise control
	21	Social welfare
	4	Greenhouse gas
	5	Packaging materials



ESG Materiality Matrix

2. Responsible Operation

2.1 Focusing on Innovation

2.1.1 Technological Innovation

Accompanying the entire development process of Hilong, "Scientific and Technological Innovation" is one of the core development strategies of the Group. Strictly following the "Innovation-Driven" strategy, we regard product innovation as the cornerstone of the Group and keep improving our technological innovation system to intensify our competitive advantages driven by technological innovation. With the firm belief that a high-performing research and development ("R&D") team can safeguard the core competitiveness of an enterprise, Hilong has established a number of professional R&D institutions with high-end experimental equipment and good R&D conditions in order to maintain a strong and professional R&D level and innovation ability in various fields of oilfield technical services. Meanwhile, aiming to overcome key technical problems, develop industrialization processes, cultivate high-end technological innovation talents, and exchange advanced scientific and technological information, Hilong actively carries out domestic and international scientific research exchanges and cooperation. In addition, Hilong has successively established a postdoctoral studios, Shanghai Hilong Petroleum Tubular Goods Research Institute, and academician expert workstations, etc. to build a strong scientific and technological innovation talent echelon. During the Reporting Period, Hilong continued putting more efforts into its research and development, and successfully innovated a number of products:



Hilong 125S/130S Super High-Strength Sulphur-Resistant Drill Pipe

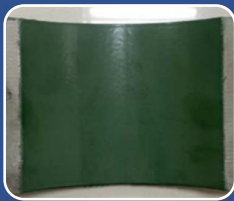
- During the Reporting Period, Hilong continued the research on the mechanism of hydrogen sulphide (“H₂S”) stress corrosion of super high-strength sulphur-resistant products, optimized the process to resist H₂S stress corrosion cracking in the welding area of the drill pipe, comprehensively improved the product manufacturing processes, and made a significant breakthrough in the key technology of 130S super high-strength sulphur-resistant drill pipe. Meanwhile, the Group has gained the sophisticated technology and mass production capability of 125S super high-strength sulphur-resistant drill pipe.
- The industry-university cooperative research project of “Key Technology and Application of HL120S Sulphur-Resistant Drill Pipe” jointly carried out by the Group and East China University of Science and Technology won the second prize of the Outstanding Industry-university Cooperative Research Projects of Shanghai for 2022. The optimization and upgrading of 120S drill pipe have filled the gap in the domestic high-end oilfield equipment industry, and effectively enhanced the Group’s economic benefits and its product competitiveness in the international high-end market.



Hilong Special Tie (“HLIST”)

- During the Reporting Period, to address the demand for the drill pipe joints with high torsion and high efficiency that were used globally for deep drilling, ultra-deep drilling, extended reach drilling and horizontal drilling in the exploration of oil and gas resources, the Group conducted the research and development of a new series of high-performance special threaded joints, including HLNST33, HLNST39, HLNST43, HLNST55 and other threaded joints, which were of higher connection efficiency, higher torsion and better fatigue performance.

Hilong Internal High-strength Powder Coating for Casing (“HiNex6000”) and Internal Powder Coating for Sulphur-Resistant Drill Pipe



- The coating quality of the gathering pipelines is under higher requirements in geological exploration and in the exploitation of oil and gas fields, shale oil, and shale gas. Hilong has developed a thick film type HiNex6000 anti-corrosion powder coating for casing with excellent mechanical properties applicable for the oil and gas exploitation environment with low concentration of H₂S, oil, water, salt water and moderate acid/alkali corrosion, and increased carbon dioxide (“CO₂”) content in oilfields. The coating cured by HiNex600 will gain impact resistance ≥ 12 joules, glass transition temperature ≥130 celsius (“°C”) and adhesion grade ≥ grade 4A, significantly improving the corrosion resistance, mechanical performance and service life of casing. Moreover, the volatile organic compound (“VOC”) emission during the use of the product is 0 parts per million (“ppm”). In the same year, "the Internal Powder Coating for Sulphur-resistant Drill Pipe" developed by Hilong Petroleum Products Technical Services (Shanghai) Co., Ltd. , a subsidiary of Hilong, won the silver medal of the " 34th Shanghai Excellent Invention Competition".

“Specialized, Refinement, Differential and Innovation (SRDI)” small and medium-sized enterprises

The technological innovation and unique development of Hilong in different business segments continued to be recognized. During the Reporting Period, the Group's subsidiaries including Shanghai Drill Pipe, Information Technology, Pipeline Engineering, and Shenglong Inspection, were recognized as SRDI small and medium-sized enterprises of Shanghai, while Sichuan Hilong Petroleum Technology Co., Ltd. was recognized as SRDI small and medium-sized enterprise of Sichuan.

Hilong's enterprise technology center was recognized as the "National-level Enterprise Technology Center” for 2022

During the Reporting Period, Hilong's enterprise technology center was recognized as the "National-level Enterprise Technology Center for 2022 (Batch 29)" jointly by the National Development and Reform Commission, the Ministry of Science and Technology, the Ministry of Finance, the General Administration of Customs, and the State Taxation Administration. It is the highest recognition for the enterprises' technology centers which have strong innovation ability and sophisticated innovation mechanisms, are highly exemplary and globally competitive, and can boost technological progress across the industry.

2.1.2 Perfection of Quality System

Quality Principle

- Honouring contracts, perfecting quality control;
- Relying on technology management, seeking quality improvement;
- Building Hilong's brand image, exceeding customers' expectation.

As an internationally competitive oilfield equipment and services provider, Hilong thoroughly implements the national innovation-driven development strategy and the concept of high-quality development, and strives to build the core competitiveness of its brand. We strictly comply with the *Product Quality Law of the People's Republic of China*(《中華人民共和國產品質量法》), *Regulations on Industrial Product Quality Responsibility*(《工業產品質量責任條例》) and other relevant domestic and foreign laws and regulations, continuously refine our quality management system, optimize our management process, focus on quality risk prevention and control, and improve the quality management ability in order to satisfy customers' diversified needs with its high-quality and sustainable products and services.

RFID Drill Pipe and Management System

During the Reporting Period, the Group developed Hilong RFID drill pipe and management system based on radio frequency identification ("RFID") technology and Internet of Things technology to further enhance the supervision on quality and use drilling tools reasonably and efficiently. The real-time information of drilling tools is available in the system, such as the cumulative use, current use status, maintenance record, and stocks, etc., enabling the remote and accurate management of drilling tools. The system has made drilling much more efficient and intelligent, and been applied in the Middle-East market for the first time.



To continuously providing customers with more stable and reliable products, we have obtained a number of international certifications in drilling services, drilling tools and production tools, including ISO 9001 quality management system certification, NS-1 (Non-productive-time Solution Level 1) accreditation. Moreover, we have been authorized to use the American Petroleum Institute (API) Monogram for various rotary drill stem elements of different size: API Spec7-1 (Rotary Drill Stem Elements), API Spec 5CT (Casing and Tubing), API Spec 5DP (Drill Pipe), API SPEC Q1 (Specification for Quality Management System) and API SPEC Q2 (Quality Management for Service Supply Organizations).



**ISO 9001
certification of
Shanghai Tube-Cote**



**NS-1 certification
of Shanghai Drill
Pipe**



**API Spec7-1 certification of
Shanghai Drill Pipe**

Hilong continues to strengthen its quality organization at all levels, incorporating all product quality and service quality into its quality management responsibilities scope and ensuring product by means of staff training, equipment selection and management, materials, production processes, operational standards, production environment, incentive mechanisms, and the provision of supervision support.

Elements of Control	Measures to Ensure Product Quality
Equipment and Testing Control	<ul style="list-style-type: none"> • Possesses advanced production and inspection equipment and establishes a complete preventive maintenance system. • Possesses a laboratory accredited by the China National Accreditation Service for Conformity Assessment (CNAS), strictly implements the measurement management policy, and regularly carries out self-calibration and third-party manufacturer calibration and verification to guarantee the accuracy of testing equipment.
Material Control	Ensures compliance with material quality requirements by conducting entry inspection, production process inspection, finished product inspection, physical and chemical performance testing, pre-shipment inspection, etc. on materials.
Production and Inspection Process Control	Makes sure that production personnel processes such as thickening, heating treatment, and non-destructive testing of drill pipe body are completed according to the relevant process control requirements of product production and inspection.
Production Environment	Effective management of production factors based on lean 5S principles.

Control	
<p>Personnel Management and Incentive System Control</p>	<ul style="list-style-type: none"> • All operators shall obtain certificates before being employed to ensure personnel capability. • Establishes an inspection team and strengthens employees' self-supervision through process or discipline inspection and implementation of incentive systems.

We annually conduct internal and external audits of the quality management system to verify and ensure the appropriateness, relevance, effectiveness, and operability of our quality management system. In addition, the Group has established a complete emergency response plan and procedures to make sure that hazards and losses are controlled within the minimum range. Once the quality management and inspection personnel have identified any safety risk in products, all the products with safety risks will be recalled immediately in accordance with the *Product Recall Policy* (《產品召回程式》) and be properly disposed. During the Reporting Period, there was no product subject to recalls for safety and health reason in the Group.

2.1.3 Quality Training

Employees' awareness of quality and operation technique are the key factors for product quality assurance. Hilong has developed a series of targeted trainings, which consist of occupational quality, theoretical knowledge, and operational skills, to enable the relevant staffs to effectively grasp theoretical knowledge and possess the ability to identify and improve quality defects. After years of practice, Hilong has cultivated a group of skilled workers and process technicians who have rich experience in the production of drill pipes as well as professional inspection skills. During the Reporting Period, the Group formulated training plans according to the training needs of each department and carried out corresponding trainings for sales department, equipment department, production department, maintenance team, warehouse management, quality inspectors, etc.

Hilong's "Quality Month" Event

In September 2022, domestic and overseas business divisions together with Technical Quality Department launched the event of Quality Month for 2022, with the theme of "Promoting the Reformation and Innovation of Quality-related Work and Boosting the Development of the Country with High-quality Products", to improve the quality awareness of all employees and the managerial capability of management personnel, and cultivate a working atmosphere of "Improving Quality by All Employees". During the Quality Month, we organized all business divisions to launch the training course on *Zero Defect Quality Management Based on Multiplied Profit* (《基於利潤倍增的零缺陷質量管理》) to help managers and technicians profoundly understand the concept of "Zero Defect Management", and incorporate it in the quality management.



Quality Month Kick-off Meeting and Learning Meeting of Domestic and Overseas Subsidiaries

Training for Internal Quality Auditors

In October 2022, Hilong carried out a five-day training for internal quality auditors to further fulfil the Group's high standards and strict requirements for high-quality products. During the training, the senior experts of Shanghai Municipal Bureau of Quality and Technical Supervision gave online courses on the GB/T19001-2016 quality management system, laying a preliminary foundation for the Group's internal auditor team.

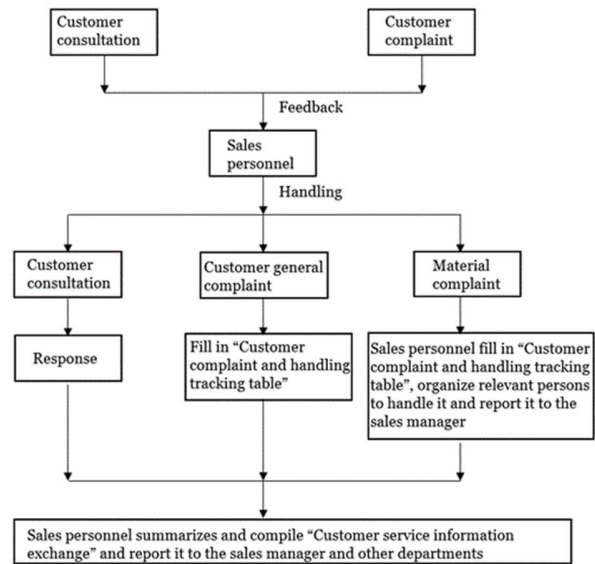
2.2 Optimization of Customer Service

The Group is committed to providing high quality services to its customers and keeps improving the content and quality of customer services throughout the pre-sales, sales and post-sales processes. Hilong has established and continuously optimized its customer service information system and strengthened the service awareness and skills training of its customer service staff. In order to effectively control the customer service, Hilong formulated the *Customer Service Management System* (《客戶服務管理制度》), defining the

service standards, and handled customers' complaints in a timely manner. Each subsidiary also formulated its own handling procedures and management methods of customer complaints, including clearly specifying the responsibilities and specific operating procedures of each department. For example, the Group's subsidiary Shanghai Drill Pipe requires its marketing staff to issue a *Customer Complaint Handling Form* (《客戶投訴處理單》) one hour after receiving a customer complaint, for which Technical Quality Department needs to give a reply within 3 working days. For any major complaint, a temporary remedy must be in place within 8 working hours, and a complete solution should be provided to the customer within 2 working days. Those who fail to handle any complaint within the required time shall be subject to corresponding fines or other penalties. During the Reporting Period, the Group received no complaints regarding its products and services.

In addition, the Group conducts regular customer satisfaction surveys and occasional call-back based on *Customer Satisfaction Control Procedures* (《顧客滿意度控制程序》) to collect and respond timely to customer opinions and thus improve their continued satisfaction with the Group.

Hilong always attaches great importance to privacy protection and information security of its customers and is in compliance with relevant domestic and foreign laws and



Procedure of Customer Complaint Management

regulations, including but not limited to the *Personal Information Protection Law of the People's Republic of China* (《中華人民共和國個人信息保護法》) and the *Data Security Law of the People's Republic of China* (《中華人民共和國數據安全法》), etc. Regarding customer information as the secret of the Group, we continue to enhance the training on confidentiality awareness for employees, and strictly implement the Group's confidentiality system and work procedures. We require that all customer information be kept in a safe place and no unauthorized personnel are allowed to copy or extract it. Meanwhile, we require that the sending and receiving of customer information, as well as the transmission and carrying out of it, be carried out by designated personnel to effectively protect the security of customer information and enhance Hilong's ability to control information security risks.

As for advertising, we are in compliance with relevant laws and regulations, such as *Advertisement Law of the People's Republic of China* (《中華人民共和國廣告法》). During the Reporting Period, we drafted and formulated the *Trademark Management Regulations*(《商標管理辦法》), which regulate the advertising contents and conducts involving external publicity such as various types of promotional materials (brochures, newspapers and magazines, etc.), online advertisements and other forms of advertisements (SMS, WeChat, radio, television, outdoor billboards, lifts, etc.) of the Group, to further realize our philosophy of responsible marketing.

2.3 Protection of Intellectual Property Rights

With the belief that protecting intellectual property is protecting innovation, Hilong, as a technology-based innovative R&D enterprise, strictly complies with relevant domestic and foreign laws and regulations, including but not limited to the *Trademark Law of the People's Republic of China* (《中華人民共和國商標法》), the *Regulations for the Implementation of the Trademark Law of the People's Republic of China* (《中華人民共和國商標法實施細則》), the *Patent Law of the People's Republic of China* (《中華人民共和國專利法》), and the *Enterprise Intellectual Property Management* (《企業知識產權管理規範》), etc. Hilong has formulated the *Regulations on Intellectual Property Management (trial implementation)* (《知識產權管理辦法(試行)》) to make detailed regulations on the registration, maintenance, and use of trademarks, reduce the risk

possibility of various intellectual property infringements that may occur in the course of the Group's operations. Meanwhile, once there is an infringement of the Group's intellectual property rights, the Group's Legal Department will take timely action to protect the Group's intellectual property rights by applying for objections and filing lawsuits. During the Reporting Period, the Legal Department of the Group drafted a new version of the *Trademark Management Measures* (《商標管理辦法》), through which protected the company's trademark exclusive rights and maintained the company's trademark reputation, so as to protect the company's interests and promote the company's development. By the end of 2022, the Group has held 135 registered trademarks of which 61 were in China, and more than 440 authorized patents, which include 89 invention patents.

Events to Enhance Employees' Awareness of Trade Secrets and Intellectual Property Protection

In April 2022, the technology management personnel of the Group participated in the special event of "Selection of the Measures for Trade Secret Protection", which was hosted by the Shanghai Science Education Exhibition Technology Center and guided by the Shanghai Association for Science & Tech. In this event, the measures for trade secret protection for enterprises were explained in multiple aspects, to enhance employees' awareness of trade secret protection and the core competitiveness of enterprises.

During the same year, Hilong carried out "2022 Hilong Group Training on Patent" in collaboration with Shanghai Huhui Law Firm to help the R&D team understand the application, protection, right ownership related to patents, the writing methods of patent technology clarification, and the skills of patent application to improve the value and the application approval rate of the patents of core product technologies.

Hilong formulated the *Management Regulations on the Use of Corporate Image VI* (《企業形象 VI 使用管理規定》), *Corporate Image Visual Identity System (VI) - Basic Specification* (《企業形象視覺識別系統(VI)－基礎規範》), *Application Specification for Business Card VI* (《名片 VI 應用規範》) and *Application Specification for Business Brochure VI* (《業務宣傳冊 VI 應用規範》), etc., to maintain the consistency and stability of corporate image while regulate and promote corporate Visual Image System (VIS). These regulations further specified roles and responsibilities of each department and units of the Group, as well as requirements of corporate image usage.

2.4 Supply Chain Management

Hilong is committed to maintaining a clean, honest, fair and just environment for corporate partnership. The Group complied guidance of the *Supplier Management System* (《供應商管理制度》), *Supplier Management Implementation Rules* (《供應商管理實施細則》) and *Measures for Quality Management of Material Procurement of Hilong Group (Trial)* (《海隆集團物資採購質量管理辦法(試行)》), etc., and strictly controls the supplier bidding, daily management, assessment, dismissal of suppliers, quality control of procurement, and channel regulation, etc.

During the Reporting Period, to improve the management level of environment, and occupational health and safety, to effectively prevent and control environmental pollution as well as occupational health and safety incidents in the supply chain, in addition to the original management procedures, Hilong signed with suppliers of hazardous chemicals the *Notice on Occupational Health, Safety and Environment* (《職業健康安全環境告知書》), clearly specifying the requirements for the production operation, inspection, storage, transportation and disposal of hazardous chemicals.

The Material Management Department of the Group is responsible for supplier management, including the access and change of suppliers, reviewing and submitting supplier information for approval, conducting daily assessment and supervision, and creating supplier profiles. According to the management principle of "Differentiated Management, Dynamic Evaluation and Survival of the Fittest", the suppliers are classified and managed by for Hilong:



For different types of suppliers, the Group set up a strict supplier selection and review system:

- **Strategic and key suppliers:** The selection progress includes four steps of information filling, on-site inspection, review and approval. Suppliers are required to provide business licenses, copies of production licenses, ISO 9001 quality management system certificates and other materials for review.
- **Cooperative suppliers:** The Group adopts a record filing system to collect and inquire the credit of such suppliers through public platforms to learn about their operating status and conducts on-site inspections when necessary.

For strategic and main suppliers, who have regular business dealings with the Group, Hilong conducts annual quantitative assessments covering production quality, contract performance, after-sales service, quotation, etc. For cooperative suppliers, Hilong adopts an exception-based assessment system. Suppliers with serious violations of laws and regulations, benefits through improper means such as bribery, and serious dishonesty announced on the official websites of state organs and authorities are disqualified by the Group. We designate the Quality Safety and Environmental Protection Department to be responsible for the quality management and supervision of materials and require appearance inspection and internal quality inspection of materials before warehousing, and continuously track and feedback the quality of materials in the course of subsequent

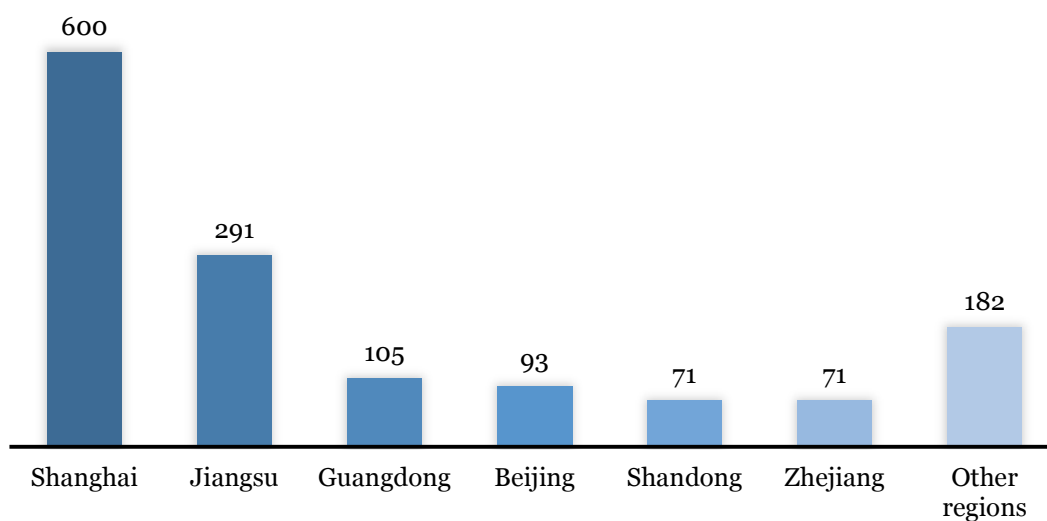
use. During the Reporting Period, Hilong completed the assessment of suppliers that had business dealings with the Group, and no supplier was dismissed due to product quality problems.

To promote sustainable and responsible supply chain construction, Hilong actively imparts the ESG concepts to its suppliers and incorporates environmental and social risk factors into its supplier management and control system:

- Strictly abide by relevant national and local laws and regulations, not to pollute the environment, and to comply with occupational safety and health requirements during the production and transportation process;
- Provide ISO14001 environmental management system and OHSAS18001/ISO45001 occupational health and safety management system certificates at the time of information submission;
- For suppliers with fraud, forgery, bidder collusion and other forms of bribery (such as providing commissions, rebates, consulting fees, intermediary fees and others to Hilong's employees), they will be disqualified by Hilong to strengthen the fair, transparent and healthy development of the industrial chain;
- We review suppliers on a regular basis and dismiss suppliers that do not meet the requirements of the Group in terms of environment, health and safety, anti-corruption, etc.

Meanwhile, Hilong encourages suppliers to recycle packaging materials and promotes suppliers to produce environmental friendly products by selecting water-based paint, solvent-free epoxy paint and other environmental friendly products. At present, the packaging barrels of solvent materials recycling have been achieved.

By the end of 2022, Hilong has 1,413 suppliers, and the number of Hilong's suppliers by geographical region is showed as below:



2.5 Implement of Business Ethics

The Group regards integrity operation as a critical pillar of its sustainable development. In addition, the Group is committed to promoting the sustainable development of the industry in an ethical and sustainable manner. Hilong strictly complies with relevant local laws and regulations, including but not limited to the *Company Law of the People's Republic of China* (《中華人民共和國公司法》), the *Tender and Bidding Law of the People's Republic of China* (《中華人民共和國招標投標法》), the *Anti-unfair Competition Law of the People's Republic of China* (《中華人民共和國反不正當競爭法》), the *Anti-money Laundering Law of the People's Republic of China* (《中華人民共和國反洗錢法》), and the *Audit Law of the People's Republic of China* (《中華人民共和國審計法》), etc. In all business dealings, Hilong is opposed to any form of bribery, corruption, extortion, and corrupt practices and clearly communicates this to all employees as well as suppliers and partners.

Hilong upholds the fundamental principles of "Prevention Precedes Punishment" and "Protect Whistle-blowers". In order to supervise and control on a larger scale and prevent the occurrence of fraud, we have formulated strict management system, such as *Management System for Audit Department* (《審計部管理制度》), *Regulations for the Implementation of the Audit Work* (《審計工作實施細則》), *Management System for Fraud and Irregularities* (《舞弊及違規行為管理制度》), *Integrity and Self-Discipline*

Standard (《廉政自律規範》), and the *Anti-corruption and Reporting System* (《反舞弊和舉報制度》), etc. The Board of the Group is responsible for urging the establishment of the internal control system, etc., to prevent fraud. The Audit and Supervision Department of the Group is a permanent establishment for anti-fraud work and responsible for internal audit. The management of each subsidiary is responsible for publicizing anti-fraud policies and reporting procedures through staff manuals, rules and regulations, or internal network and other channels.

We actively communicate our philosophy of integrity in cooperation and business to our customers, suppliers, outsourcers and other stakeholders. Meanwhile, we highlight the declaration and reporting of conflicts of interest and prohibits employees from soliciting any benefits from those who have business dealings with the Group, including business partners, customers, suppliers, contractors, competitors, or those who have business relations with Hilong. During the cooperation with suppliers, Hilong strictly implements the *Tendering Management Policy* (《招標管理制度》) and purchases materials and services through an open and fair bidding process. When signing the contract with partners, Hilong signed the *Integrity Agreement* (《廉潔協議》) with them or presented them with the *Integrity Notice* (《廉潔告知書》), requesting that no corruption be allowed in the cooperation process.

The Group has established a sound reporting mechanism to increase the efficiency of the Group's internal supervision on anti-corruption and integrity. Hilong has established various reporting channels and sound handling procedures, and disclosed them where easily visible in offices and factories. After receiving complaints, the Audit and Supervision Department conducts an investigation and reports to management or the Board of Directors after confirmation and decides punishments in accordance with the relevant regulations of the Group. In case of violation of the laws, the case will be referred to a judicial office for further processing. Meanwhile, Hilong has established a whistle-blower protection mechanism through which the information of whistle-blowers and relevant information is kept confidential. If the whistle-blower encounters with any form of discrimination or retaliation, the Audit and Supervision Department will intervene in a timely manner by demoting those who conducted retaliation, terminating the employment contract or other measures. In case of violation of the laws, the case will be referred to a judicial office for further processing.

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Along with regular prevention and supervising, Hilong communicates the new policies to employees at all levels, highlights the risks of corruption and conflict of interest to the management, and proposes measures to identify and reduce related risks. Meanwhile, the Group strengthens daily anti-corruption education and regularly organises publicity and trainings on anti-fraud policies and reporting procedures.

Hilong's Anti-Fraud Training

In April 2022, Hilong launched anti-fraud training for all board members and employees. In the training, the in-depth study of the *Anti-fraud and Reporting System* (《反舞弊和舉報制度》) was carried out and the reporting methods and procedures for various fraud problems were clarified, increasing employees' awareness of adhering to the code of conduct and ethical standards, and striving to build a clean, self-disciplined, and law-abiding working environment.



Anti-Fraud Training in 2022

During the Reporting Period, the Group and its employees have had no violations involving corruption, bribery, extortion, fraud or anti-money laundering. Also, there were no concluded legal cases regarding corrupt practices during the Reporting Period.

2.6 Sincerely Giving Back to the Society

For a long time, Hilong has been actively committed to promoting the development of public welfare and carrying out diversified public welfare and charity projects in the aspects of rural revitalization and community services. Hilong also continuously encourages employees to carry forward the spirit of selfless dedication, responsible behaviour, repay the society with practical actions and improve people's blessedness. Hilong has formulated the *Measures for the Administration of Charity and Public Welfare Activities* (《慈善與公益活動管理辦法》), which stipulates the source and use of fund, the form of activities, summary, and assessment of activities, etc. During the Reporting Period, Hilong carried out various volunteer services such as targeted aids, helping local farmers, charitable donations, caring the elderly, free blood donation, etc., demonstrating the dedication spirit and values of Hilong's employees.

Community Services

- **Targeted aid:** During the Reporting Period, Hilong continued to actively respond to the call of the central government and Shanghai Municipal Government, and provided targeted aids to poverty-stricken villages in Yunnan, including procure poverty alleviation materials worth RMB 120,911 to bolster the achievements made in poverty alleviation in the new era.
- **Donation to Shanghai Charity Foundation:** During the Reporting Period, as a unit of "Shanghai Public Welfare Base", Hilong donated RMB 50,000 to the Shanghai Charity Foundation. Moreover, in response to the call of the Group, Hilong's employees donated cumulatively RMB 3,600.
- **Blood donation:** Hilong encourages employees to participate in blood donation every year and to be volunteers for hematopoietic stem cell donation. During the Reporting Period, 53 Hilong's employees participated in the donation.



Blood Donation Activity

Hilong Volunteers Combating the pandemic in Shanghai

In the first half year of 2022, Shanghai was facing the severe test of Corona Virus Disease 2019 pandemic (hereinafter referred to as "the pandemic"). Hilong's employees responded quickly to combat the pandemic. They assisted the government in sorting out nearly 140,000 pandemic prevention kits, 43 employees actively became the pandemic prevention volunteers in the community, with each person averagely serving hundreds of hours.

In addition, Hilong's employees ensured production for almost two months during the pandemic. Moreover, they served as nucleic acid sampling volunteer in the industrial park, collecting more than 8,000 pieces of sample. By doing all these, Hilong's employees helped safeguard the health of employees and recover production.



**Hilong Employees Sorting out
Pandemic Prevention Kits**



**Hilong Employees Combating the
Pandemic in the Industrial Park**

In 2022, Shen Libao, an employee of Hilong, was awarded as the "Moral Model of Baoshan District".

In April 2022, Shen Libao, an employee of Hilong, rescued a person from water when Shen was serving as a pandemic prevention volunteer. After getting the drowning person out of water, with the knowledge he learned for his Red Cross first aid certificate, Shen carried out first aid, cleaning the mouth and nose of the drowning person, conducting CPR, and successfully recovered the consciousness of the rescued. After asking around for Shen, the family of the rescued finally found him and presented him with a pennant of honor, thanking him for rescuing the entire family. Shen Libao also was awarded as the "Moral Model of Baoshan District for 2021 - 2022" for his deed.



**The Family of the Rescued
Presents a Pennant of Honor in
Gratitude**

3. Care for Employees

Upholding the employment principles of "Fairness, Impartiality, and Openness", Hilong continuously improves the 3-level human resources management framework consisting of the Group, the Business Division, and the subsidiaries. In pursuit of mutual development of our employees and the Group, and realization of employees' value, we protect the rights and interests of employees with a high sense of responsibility, provide employees with promising promotion channels, sound training system, and healthy and safe working environment. Hilong strictly complies with relevant domestic and foreign laws and regulations, including but not limited to the *Labour Law of the People's Republic of China* (《中華人民共和國勞動法》), the *Labour Contract Law of the People's Republic of China* (《中華人民共和國勞動合同法》), the *Law of the People's Republic of China on the Prevention and Control of Occupational Diseases* (《中華人民共和國職業病防治法》), the *Work Safety Law of the People's Republic of China* (《中華人民共和國安全生產法》), and the *Provisions on the Prohibition of Using Child Labour* (《禁止使用童工的規定》).

3.1 Ensuring Employee Rights

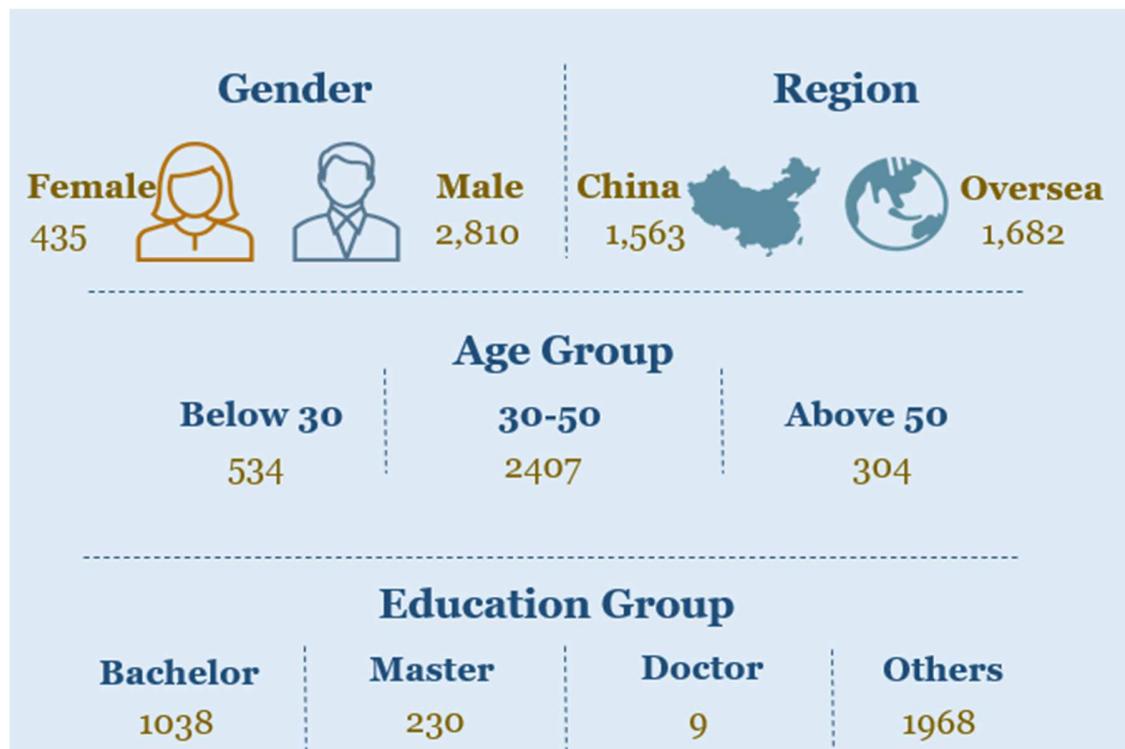
3.1.1 Employee Employment

Adhering to the principle of equality and non-discrimination, Hilong respects the rights and interests of all employees and constantly improves the Group's internal employment management system. The Group formulated and implemented the *Employment Management Policy* (《員工聘用管理制度》) and the *Labour Contract Management System* (《勞動合同管理制度》) to regulate the recruitment process. Hilong explores and attracts outstanding talents through on-campus recruitment, social recruitment, recruiting websites, head-hunters, talent market, and so on. Hilong continues to optimize the talent echelon, absorb employees with different backgrounds, and strive to improve the Group's R&D, management and other aspects of capabilities. By the end of December 2022, the Group has 9 employees with doctorate degrees, 230 employees with master's degrees, and 1,038 employees with bachelor's degrees.

Hilong strictly prohibits child labor and all forms of forced labor. In accordance with the appendix of the *Employment Management Policy* (《員工聘用管理制度》), the *Employment Standards for New Employees* (《新員工錄用標準》), the newly hired shall

be above the age of 18, and their identity information is subject to strict scrutiny to prevent the unintended employment of child labor. In case of any unintended employment of child labor identified, we will immediately terminate the employment contract and send them back to their parents or other legal guardians in accordance with the *Provisions on the Prohibition of Using Child Labour* (《禁止使用童工的規定》). Hilong strictly controls overtime in compliance with the legal working hours to guarantee the rest and physical and mental health of employees. In case of unavoidable overtime on holidays, employees are given compensatory time off or paid overtime wages in accordance with the law.

By the end of December 2022, Hilong has had 3,245 employees composed of all full-time employees. More details are shown by gender, age group, region and education group as bellow:

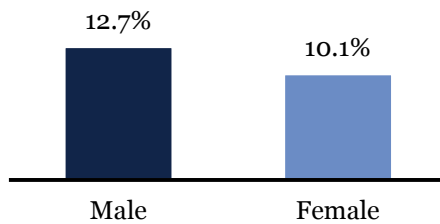


In addition, the Group fully respects the career choices of its employees. As for resignation, Hilong strictly complies with the *Employee Termination Management Policy* (《員工離職管理制度》), and protects the legitimate rights and interests of employees. The dismissal process starts only when the employees meet the relevant requirements for dismissal and when the dismissal is confirmed by the head of the department. In addition, Hilong

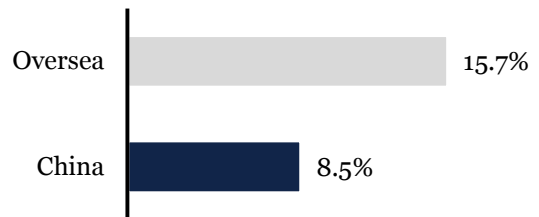
formulated the *Rules for Retirement Ceremony of Employees* (《員工退休歡送儀式的規定》) and will organize retirement parties and send blessings to retired employees.

During the Reporting Period, the employee turnover rate of the Group by gender, age group, and region is shown below:

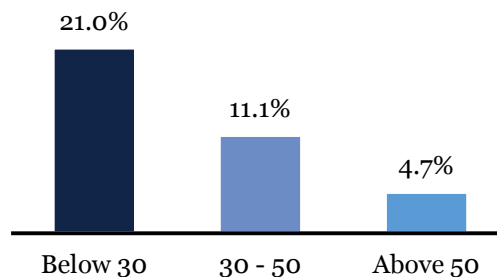
Employee turnover rate by gender



Employee turnover rate by region



Employee turnover rate by age group



3.1.2 Employee Compensation

Hilong strictly abides by the laws and policies regarding employment, remuneration, social insurance, etc., of the countries or regions where it operates and has established competitive compensations system to ensure that the average salary of all employees were at the upper and middle levels in the market, and the salary of key core positions were at the leading level in the market. The Group has formulated the *Management Measures for Management Personnel Compensation of the Group* (《集團管理序列人員薪酬管理辦法》), *Implementation Measures on Level and Compensation Appraisal and Adjustment for Employees below Departmental Heads of the Group* (《集團部門長以下員工職級及薪酬核定調整實施辦法》) and other management policies to improve and perfect the compensation distribution system. In accordance with the Group's principle "Equal Pay

for Equal Work, Fairness and Reasonableness, Incentive and Ease of Operation.”, a dual-channel compensation system for management and professional technical positions is implemented.

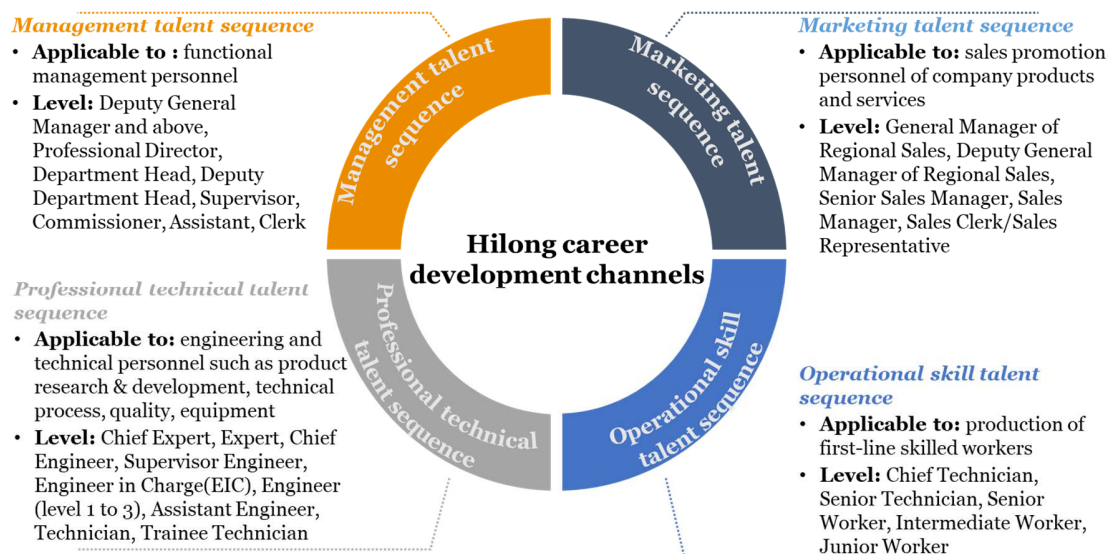
In order to motivate employees and give rewards and punishment according to the actual situation, Hilong formulated the *Annual Evaluation Fulfilment Measures on Group, Business Division (Specialized Company) and Subsidiary Management* (《集團、事業部（專業公司）及分/子公司管理層年度考核兌現辦法》), strengthened the link between the management's compensation, profit and completion ratio and established a compensation management system focusing on "Position, Ability and Performance".

3.2 Promoting Talent Development

3.2.1 Employee Promotion

Hilong actively maintains its diversified operations and firmly believes that diversified operations can keep the enterprise dynamic. We provide equal employment opportunities for talents regardless of their gender, nationality, race, age, family background, ethnic traditions, and religions. Based on all these, we also require all expatriate employees to fully respect the religious beliefs and living customs of local employees overseas, and arrange specialized training for employees dispatched to overseas subsidiaries and Project Departments before going abroad to help them understand the laws, regulations, religious beliefs, and living customs of the corresponding countries and regions. We also require employees to strictly comply with above regulations to ensure that employees of different countries, races, religious beliefs, and living customs are treated equally with respect and protection at Hilong.

In terms of employee promotion, Hilong adheres to the employment standard of "Focusing on Morality and Capability, Giving Priority to Morality" and sets clear career development channels for employees, helping and motivating employees to continuously realize their professional and personal values.



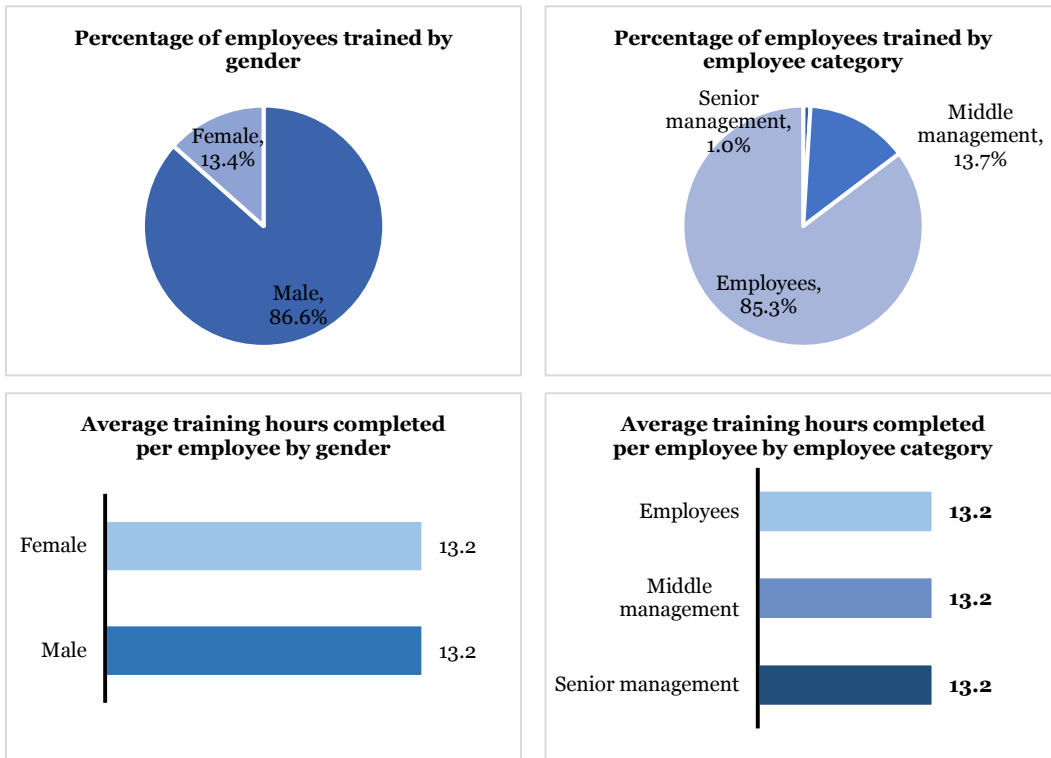
At the same time, based on the *Performance Appraisal and Management Policy* (《績效考核管理制度》), Hilong implements annual employee performance appraisal and reviews development potential. The appraisal results are taken as the basis of salary and grade adjustments. For employees of different positions and grades, the Group formulated policies such as the *Implementation Measures on Level and Compensation Appraisal and Adjustment for Employees below Departmental Heads of the Group* (《集團部門長以下員工職級及薪酬核定調整實施辦法》), the *Management Measures for Accreditation and Appointment of Professional and Technical Personnel* (《專業技術人員任職資格評審及聘任管理辦法》), the *Management Measures for Skill Rating of Frontline Production Operators and Appointment of Technicians* (《一綫生產操作員工技能等級評定及技師聘任管理辦法》), standardizing the management of employee grade adjustments and giving employees fair and reasonable remuneration and career development channels.

3.2.2 Employee Training

Based on the development and growth of each employee, Hilong formulated the *Staff Training Management Policy* (《員工培訓管理制度》) and formed a hierarchical training system in order to improve the ability and quality of employees to optimize the career path of employees and promote the joint progress of employees and the Group. Training is arranged for employees at all levels across the Group from three levels: the Group, business division, and subsidiary company. Hilong organizes various training such as management training, professional technician training, sales training, overseas talent

training, and operational and technical training each year so as to continuously improve employees' professional skills.

During the Reporting Period, the proportion of trained employees in the Group was 100%, with the total training hours throughout the year reaching 42,834 hours.



3.3 Occupational Health and Safety

Hilong puts high emphasis on occupational safety and health while insisting on giving priority to the life safety and occupational health of the employees. A number of the Group's subsidiaries have obtained relevant certification of the ISO 45001 occupational health and safety system. We set up an Occupational Health, Safety and Environmental Protection Committee ("HSE Committee"), which has the HSE Management Office as one of its subsidiaries, to manage the Group's health, safety and environmental protection issues. Also, we summarise the safety achievements of each division in the previous month and our HSE work priorities for the following month at our regular meetings on a monthly basis. The Group regularly conducts safety inspections on its subsidiaries to identify and analyze potential safety risks in their technological processes, production operations, equipment and facilities, working environment, fire safety, use of hazardous chemicals,

occupational health and safety management, personnel behavior, and management system, etc., with targeted rectification suggestions proposed to eliminate potential safety hazards in production processes in a timely manner. During the Reporting Period, to further improve the overall HSE management at all levels of the Group, Hilong formulated and implemented the *Compilation of HSE Management Systems of Hilong Group* (《海隆集團 HSE 管理制度匯編》) across the Group to prevent and control occupational diseases and work-related accidents, and implement environmental protection.

HSE Policies:

- People Oriented, All Staff Participation, Scientific Management, and Sustainable Development

HSE Goals:

- Pursuing No Accident, No Injury and No Pollution to Create First-class HSE Performance

During the Reporting Period, due to the growth of business volume and the significant increase in employee working hours compared with 2021, the number of lost working days of the Group was 183 days, and the injury rate of million working hours decreased by 0.4 compared with the same period last year. The Group promptly tracked the reasons, strengthened the supervision of safety hazards and implemented improvements, improved the relevant management systems, and further strengthened employee safety awareness training and safety operation assessments. In the past three years, the Group never had any work accident that involved employee fatality.

3.3.1 Production Safety

Following the production safety policy of "Putting Safety and Prevention First, and Governing in a Comprehensive Manner", all business divisions and subsidiaries of Hilong are committed to a "No Accident, No Injury and No Pollution" safety production model. They have built up a robust safety production framework comprising a range of safety systems and further enhanced the standardization of production safety for better management of production safety and fewer safety accidents.

Hilong has always been regarding production safety management as part of its day-to-day management since its establishment. After continuously consolidating the foundation for safety work and improving the management methods and means of production safety, the

Group has put in place a complete safety production system, defining the personnel or entities bearing the responsibility respectively for the safety, safety supervision and post safety in each business division and regional organization. The responsible personnel or entities identify and assess risks on a regular basis and carry out hierarchical management based on risk identification results, with corresponding control measures taken.

Hilong has formulated and strictly followed the *Incident and Accident Control Procedures* (《事件事故控制程序》) to quickly address safety accidents that may occur in the production. Through hierarchical reporting, establishing an accident investigation team, releasing an investigation report, making an imputation based on the investigation results, and preparing an accident analysis report, making announcement, rectification to lesson learning.

Hilong has dedicated safety personnel and avoids any potential safety incident by strictly implementing the production safety responsibility system, making vigorous efforts on the construction of safety teams, strictly controlling production safety work, and organizing safety training and emergency drills. Subsidiaries of Hilong conduct independent safety inspections once a month, while the Group carries out a complete safety inspection on each subsidiary on a monthly basis to ensure that there are no dead ends in the safety aspect. During the Reporting Period, we increased the frequency and expanded the scope of safety inspections, aiming to have monthly notification and 100% rectification of hidden hazards by the subsidiaries.

During the Reporting Period, to further prevent and reduce hazards to employee safety, Hilong introduced a safety management tool STOP Card, Safety Training Observation Programme ("STOP"), which originated from a US-based company, DuPont. The Group's subsidiaries, Shanghai Drill Pipe has placed it in full operation, while Pipeline Engineering is implementing it in the trial. We implement the STOP Card system not only to correct the unsafe behavior of employees but also to reward the outstanding units and safety observers, to improve the production safety management, and minimize potential safety hazards by encouraging employees to continuously improve their safety skills and enhance their safety awareness.



Hilong's "STOP Card" Event Kick-off Meeting

Hilong conducts safety training on an annual basis for management, department managers and operators to enhance safety awareness of every employee. During the Reporting Period, the Group conducted various trainings led by Hilong's own instructors and external lecturers, such as "How to Standardize Safety Production", "Special Equipment Safety Training" and "Knowledge of the Safe Management and Use of Hazardous Chemicals", enhancing the awareness of safety production of each Business Divisions.

Hilong's Safety Training and Drill on November 9 “the Fire Prevention Day)” in 2022

In November 2022, to improve the fire safety awareness of all employees and reduce the hazards caused by fire, Hilong carried out a fire safety drill based on the principle of "Controlling Prior to Extinguishing Fire, Saving People Prior to Extinguishing Fire, Important Locations Prior to Less Important Ones". Meanwhile, we prepared fire safety training content based on relevant laws and regulations such as the *Fire Protection Law of the People's Republic of China* (《中華人民共和國消防法》) and the *Regulations on Fire Safety Management of Government Bodies, Organizations, Enterprises and Public Institutions* (《機關、團體、企業、事業單位消防安全管理規定》), and carried out fire safety training for all employees.



Hilong's Fire Safety Training and Drill

Training on Hazardous Chemical Management in 2022

In August 2022, to strengthen the safety management of hazardous chemicals, prevent hazardous chemical-related accidents such as fire, explosion and poisoning, and enhance the ability to deal with emergencies, the Group conducted online or offline special training on hazardous chemical management for a total of 103 custodians of hazardous chemicals and operators of various business divisions.



Training on Hazardous Chemical Management

2022 Production Safety Month

In June 2022, Hilong conducted the 21st session of "Production Safety Month" with the theme of "Complying with the Safe Production Law and being a Responsible Person", aiming to reinforce safety awareness across the Group.

Safety awareness promotion: We hung banners with the Safe Production Month theme, played safety production promotional videos, recorded safety stories from first responsible persons, and conducted other activities to strengthen the safety awareness and sense of responsibility of the leadership team, and firmly establish the bottom-line thinking of safety first for all employees.

Production safety training: We held several special training sessions during Safe Production Month, including "STOP Card", Job Safety Analysis (JSA) training, "case analysis by case" awareness training, and basic safety skills training, and tested the effectiveness of the training through accompanying assessments. In addition, we also held the third safety knowledge competition with the theme of "Strive to be a Safety Expert", which attracted 55 participants.

Inspection of safety hazards: We conducted a comprehensive inspection and risk classification control check of first-line hazards and all Shanghai-based companies, meticulously examining violations, daily management of hazardous chemicals, equipment hazards, electrical safety, etc., and completing responsibility and rectification for all identified safety hazards.



Publicity Signs Related to Production Safety Month



Safety Knowledge Contest

3.3.2 Occupational Health

Hilong considers the protection of employee health as one of its fundamental responsibilities in its business operations. We have developed and strictly follow the *Occupational Health Management Policy* (《職業健康管理制度》) and other management procedures to standardize the management of our employees' occupational health. According to the *Administrative Regulations on Periodic Testing of Occupational Disease Hazards by Employers* (《用人單位職業病危害因素定期檢測管理規範》), Hilong yearly conducts a comprehensive inspection on work sites where the occupational disease hazards exist. If the concentration or intensity of occupational disease hazard factors exceeds the limit of occupational exposure, we will develop plans and take immediate corrective actions. For employees working in positions with high potential of occupational disease hazards, Hilong informs them of the hazards before they start work, and arranges health examinations before, during, and after their work. All examination results will be promptly recorded in the occupational health file and communicated to the employees to ensure that they fully understand their occupational health status. During the work process, Hilong takes measures such as issuing labor protection supplies to effectively reduce the impact of the work environment on employee health.

During the Reporting Period, in the friction welding automation transformation project, we replaced the traditional polishing rust removal process with a safer and more environmental friendly laser rust removal, which not only completely eliminates the occupational health hazards of the traditional process but also alleviates the problem of environmental pollution in the plant. In July 2022, Hilong installed online dust detection devices, spark detectors, explosion-proof valves, automatic fire extinguishing sprinklers, and other safety devices at the relevant locations of the dry dust removal system following the *Safety Regulations on Dust Explosion Prevention for Industrial and Trade Enterprises* (《工貿企業粉塵防爆安全規定》), and the *Safety Regulations for Dust Explosion Prevention and Protection* (《粉塵防爆安全規程》) to efficiently prevent safety accidents. In addition, Hilong pays attention to health education and training for all employees by regularly conducting occupational health training to popularise knowledge on the prevention and treatment of occupational diseases and labour protection, as well as information about healthy lifestyles, disease prevention, and mental health.

3.3.3 Emergency Response

Hilong has established a sound emergency response mechanism. It has formulated enterprise-level specialized emergency response plans based on the *HSE Management System of Hilong Group* (《海隆集團 HSE 管理制度》), and other internal regulations for major emergencies such as leakage, fire, and explosion in the production and storage of hazardous chemicals and special hazard mediums. Guided by the mechanism, the Group conducts emergency response drills annually to constantly enhance the emergency awareness and hands-on capabilities of staff and extract corresponding corrective measures from the drill results to continuously improve emergency management capabilities.

To reduce potential accidents in the workplace and production process, such as the short circuit of power cables and equipment, which may easily result in casualties, the Group has compiled the *Exercise Plan for On-site Electric Shock Response* (《觸電事故現場處置演習方案》). During the Reporting Period, the Group conducted on-site exercises for such scenarios for a timely and effective emergency response to electric shock incidents.

Hilong " Comprehensive Emergency Team" was assembled in 2022

During the Reporting Period, the Group established Hilong Comprehensive Emergency Team. In order to further enhance the Group's overall emergency response and rescue capabilities in response to unexpected events such as fires, typhoons, and floods, Hilong established the Group Comprehensive Emergency Team based on the existing micro-fire stations. The comprehensive emergency team is responsible for functions including firefighting, extreme weather emergency response, and public health incident response. The team members regularly receive first aid, flood prevention, typhoon prevention, and other knowledge and skills training, as well as centralized physical training, to ensure that they can respond in the first time in the event of an emergency to maintain the safety of the Group and control the spread of emergency situations.



Comprehensive Emergency Team Training

3.3.4 Prevention and Control of the COVID-19 Pandemic

In the first half of 2022, there was a widespread COVID-19 outbreak in Shanghai. To better carry forward the pandemic prevention and control of the Group and its subsidiaries with clear tasks and defined responsibilities, we have issued a *Notice on the Tasks and Responsibilities for Pandemic Prevention and Control* (《關於做好疫情防控工作安排的通知》). In addition, we instructed each subsidiary to set up multiple special taskforces on pandemic prevention and control, with the general manager of each subsidiary serving as the head of their taskforce and taking full responsibility for the prevention and control of the pandemic for their subsidiary. The special taskforces come with various teams for disinfection, temperature measurement and mask-wearing inspection; information collection on people's departure-return to Shanghai and people's health condition; communication with authorities; publicity of pandemic prevention and control; and other tasks.

While strictly implementing epidemic prevention and control, Hilong quickly anticipated and deployed procurement work in advance to ensure the adequate supply of raw materials. Meanwhile, we arranged for personnel to be stationed on-site to coordinate the processing of emergency material needs to ensure production continuity during this period. In order to ensure the smooth and orderly production and operation of the enterprise, we coordinated production arrangements and reasonably allocated workers according to the order situation, ensuring that production orders were completed on time and with quality.

During this epidemic period, we overcame various difficulties, with our all units in Shanghai achieving good business performance. This effectively ensuring the basic operation of Hilong, meeting customer needs, enhancing the cohesion of all employees, and further establishing and consolidating the responsible brand image of Hilong. After

the epidemic was alleviated, we quickly processed procurement needs and made the greatest efforts to ensure the timely supply of production materials, becoming one of the first enterprises in Baoshan District, Shanghai to resume work and production comprehensively.

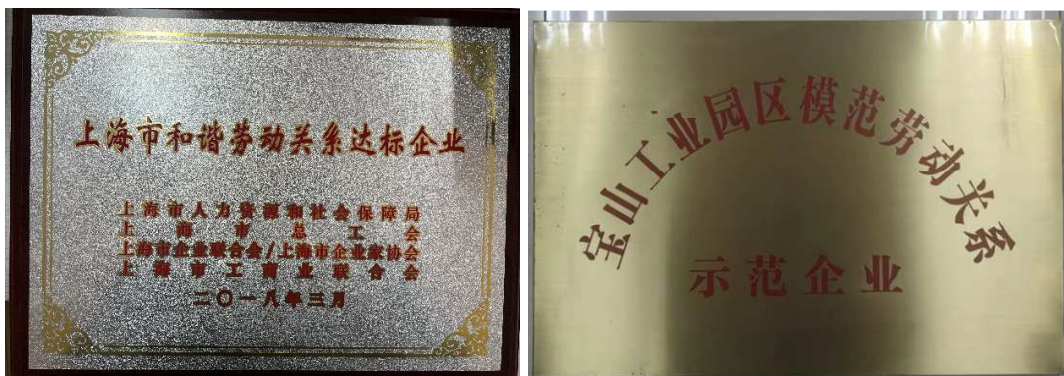
3.4 Guaranteeing Employee Welfare

3.4.1 Employee Welfare

Hilong regards employees as critical assets and attaches great importance to the setup of employees' welfare support system. Hilong paid social insurance premiums for employees according to the law. Moreover, employees of Hilong enjoy various benefits packages, including birthday bonuses, festival bonuses, annual physical checks, free shuttle buses, communication allowance, and free work meals, etc.

In order to provide a comfortable and secure living and working environment for the new graduates, Hilong has specially prepared a well-furnished apartment building for them, which in turn is a strong guarantee for Hilong to attract talents. In addition, Hilong has formulated and continuously implemented the *Management Measures for the Haizhou • Fund of Comprehensive Arrangement for Serious Disease* (《「海洲•大病统筹基金」管理办法》), which helps the employees with serious diseases and their families to cope with troubles.

The Group, with harmonious and stable labour relations and well-protected employees' rights and interests, was awarded the honorary plaque of "Standard Enterprise with Harmonious Labour Relations in Shanghai" by the Shanghai Human Resources and Social Security Bureau and Shanghai Federation of Trade Unions in conjunction with relevant associations, and that of "Demonstration Enterprise for Exemplary Labour Relations of Baoshan Industrial Park" by the Management Committee of Baoshan Industrial Park.



"Standard Enterprise with Harmonious Labour Relations in Shanghai" and "Demonstration Enterprise for Exemplary Labour Relations of Baoshan Industrial Park" Honorary Plaque

3.4.2 Employees Activities

Hilong highly values corporate culture development and is committed to offering a pleasant working atmosphere for employees. We hold splendid cultural events every year, emphasizing teamwork and enhancing employees' sense of belonging and involvement. The Reporting Period happens to coincide with the 20th anniversary of the founding of the first company within Hilong. Therefore, we organized the "Broadcast Your Love for Hilong on May 20" event, arranged the 20th-anniversary celebration of the first company within Hilong, commended outstanding Chinese and overseas employees in fighting against the COVID-19 pandemic, and held a workstation physical exercise contest among employees.



海隆首家公司成立 20 週年慶典

In addition, Hilong utilises the WeCom "Say Your Voice Interaction Platform" as an online channel for communication with our employees, where employees can share their work and life stories, make suggestions, and voice their feelings as topics for discussion. In recent years, Hilong has engaged its employees in a variety of special events, such as "The Beauty of Hilong" mobile phone photography event, hot summer expression cultural event, Mother's Day and Father's Day topics, and Hilong quiz, so as to enable the employees to stay involved, interact with them in real-time, listen to their voices, and showcase the vibe of Hilong employees.

4. Environmental Protection

Hilong implements the "People-oriented, Health Priority, Safety First, and Leading in Environmental Protection" HSE policy, aiming to reduce emissions and improve resource utilization efficiency as environmental goals. In accordance with the *ISO 14001/GB/T 24001 Environmental Management System Requirements and Usage Guidelines* (《ISO 14001 / GB/T 24001 環境管理體系要求及使用指南》), Hilong continuously improves its environmental management system, identifies and controls key environmental risks, and minimizes the impact of production and business activities on the environment. Meanwhile, Hilong conscientiously implements laws and regulations, including but not limited to the *Environmental Protection Law of the People's Republic of China* (《中華人民共和國環境保護法》), *Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution* (《中華人民共和國大氣污染防治法》), *Law of the People's Republic of China on Prevention and Control of Water Pollution* (《中華人民共和國水污染防治法》), *Law of the People's Republic of China on Prevention and Control of Environmental Pollution by Solid Waste* (《中華人民共和國固體廢物污染環境防治法》) and other laws and regulations in the countries and regions where the Group operates, and designates the HSE Committee of the Group to manage environmental protection work.

The Group has formulated and enforced the *Hilong Holdings' Environmental Protection and Energy Conservation Management System* (《海隆控股環保節能管理制度》), with many of its subsidiaries having passed the ISO 14001 environmental management system certification. Shanghai Drill Pipe, Hilong's core subsidiary, is also a demonstration unit of Shanghai's green manufacturing system. Through the selection of green materials, the use of clean production technology, resource recycling, and pollutant discharge compliance, it embodies the green development concept of "Innovation, Green Development, Openness, and Sharing".

4.1 Green Product Research and Development

In addition to complying with the requirements on emissions, Hilong has developed its own research and development capabilities to reduce VOCs emissions from its coating products. For instance, we have developed a number of low-VOC coating products which meet the technical requirements of the Chinese national standard GB/T 38597-2020 for

low-VOC coating products. Besides, the actual measured VOC content is much lower than the standard. In addition, the coating products have been certified by the Shanghai Municipal Bureau of Ecology and Environment as a model project of alternative raw materials, auxiliary materials and products with low-VOC content in key industries.

Hilong won the silver award in the "Shanghai Outstanding Contest"

"The Internal Powder Coating for Sulphur-resistant Drill Pipe" developed by Hilong Petroleum Products Technical Services (Shanghai) Co., Ltd., a subsidiary of Hilong, won the silver medal of the "34th Shanghai Excellent Invention Competition." The awards have demonstrated Hilong's independent innovation capability, core competitive edge, and green product development strength to the public.

4.2 Implement of Emission Management

Hilong upholds emission management with environmental standards above national and local standards in China and is committed to sustainable management throughout the operation. Hilong regularly invites the local environmental supervision department to monitor the emissions and forms monitoring reports to ensure that the emissions are discharged in compliance with regulations. Meanwhile, the Production Safety and Environmental Protection Department of the Group conducts a unified yearly inspection of all production units in Shanghai, monthly inspections of the Baoshan Industrial Zone, and unscheduled on-the-spot inspections. It also requires the Safety and Environment Offices of subsidiaries to conduct independent environmental inspections to ensure up-to-standard discharge. Hilong has set up specific environmental protection indicators in the appraisal indicator system for members in various business divisions and their management to encourage each business division to put more emphasis on emission management.

4.2.1 Waste gas and Wastewater

Hilong's waste gas emissions mainly include VOCs generated from the coating production, NO_x and SO₂ from natural gas combustion in boilers for pipe heating, particulate matters from powder coating, and waste gases from diesel consumption in diesel engines for well drilling. According to the requirements of relevant laws, Hilong has set up corresponding purification treatment equipment in process links that can generate exhaust gas, collect and process the generated exhaust gas, and only discharges them into the atmosphere

after reaching the emission standard.

Wastewater generated from Hilong includes domestic wastewater and production wastewater from general production processes and oilfield services. Hilong discharges domestic wastewater directly into the municipal sewage network. General production wastewater is recycled without external discharge, and wastewater generated by oilfield services is treated in accordance with the laws and regulations of the jurisdictions where they are located. Hilong and its subsidiaries all have the *Permit to Discharge Urban Sewage into the Drainage Networks* (《城鎮污水排入排水管網許可證》), ensuring that the number and location of drains, water discharge, variety and concentration of major pollutants discharged, etc. comply with the *Urban Drainage and Sewage Treatment Regulations* (《城鎮排水與污水處理條例》) and other regulations.

During the Reporting Period, the types of emissions generated by the Group and the emission data are shown below:

A1.1 Emissions	2022	2021	2020	Unit
VOCs	0.5	0.3	0.4	tonnes
NO _x	5.1	4.9	3.7	tonnes
SO ₂	0.28	0.24	0.06	tonnes
Particulate Matter	6.5	6.7	7.4	tonnes
Wastewater	92,284.2	72,807.2	67,634	tonnes

Note: We installed dust collectors and other measures in the workshop to reduce the particulate matter content in the exhaust gas. During the Reporting Period, the particulate matter in our exhaust gas decreased compared with previous years. During the Reporting Period, the amount of wastewater increased due to the increase in the on-site production time of employees during the epidemic and the substantial increase in water used for cleaning and disinfection. As production has risen sharply compared to last year, VOCs, NO_x, and SO₂ emissions have increased.

4.2.2 Greenhouse Gases

Hilong's greenhouse gas emissions primarily include fuel used in heat treatment processes, gasoline and diesel burning of vehicles and indirect emissions from purchased electricity. Since greenhouse gas emissions mainly come from energy consumption, Hilong actively encourages green office, and green production, carries out energy-saving renovation projects and adopts energy-saving measures to reduce energy consumption so as to reduce

greenhouse gas emissions.

During the Reporting Period, the greenhouse gases emissions in total and intensity are shown below:

A1.2 Greenhouse gases	2022	2021	2020	Unit
Scope 1: Direct emissions	10,801	7,768	7,602	tCO ₂ e
Scope 2: Indirect energy emissions	22,705	26,869	24,217	tCO ₂ e
Total emissions	33,506	34,637	31,820	tCO ₂ e
Emission intensity	9.0	11.9	12.1	tCO ₂ e/million RMB revenue

Note 1: Greenhouse gas emissions are presented in CO₂ equivalent. Greenhouse gas emissions from electricity purchased in Shanghai are calculated based on the electricity emission factors adjusted by the Shanghai Municipal Bureau of Ecology and Environment in 2022, while other accounting methods and conversion factors come from the Accounting Methods and Reporting Guide for Greenhouse Gas Emissions from Mechanical Equipment Manufacturing Enterprises (《機械設備製造企業溫室氣體排放核算方法與報告指南》) issued by the National Development and Reform Commission.

Note 2: During the Reporting Period, the diesel fuel consumption increased compared with 2021 as the ownership of the storage and transportation business was transferred back to Hilong; The consumption of natural gas increased due to a significant increase in the production of drill pipes compared to last year; the above reasons resulted in the increase in direct greenhouse gas emissions.

4.2.3 Solid Waste

The solid waste generated by Hilong mainly includes domestic waste, general industrial waste, and hazardous waste generated from the production process. Among them, hazardous waste mainly includes oily wastewater, waste mineral oil, paint packaging, and paint waste, etc. During the Reporting Period, Hilong carried out the recycling of engineering scraps, including epoxy powder, polyethene pipe coating and iron ash produced from sanding, which not only reduced the industrial waste discharge but also lowered the production cost for Hilong.

The Group further reinforced the management of general industrial solid waste in accordance with the *Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste* (《中華人民共和國固體廢物污染環境防治法》) and the targeted approach of "Full Coverage based on Different Levels and

Categories with Traceable Destination". In addition, we continuously updated and refined *the General Industrial Solid Waste Management Policy* (《一般工業固廢管理制度》) to optimize the classification system of general industrial solid waste and clarified the main responsibilities of the generating units, thus forming closed loop management from source to end by tracking the whole process of generation, storage, collection, utilization and disposal.

- **Domestic waste:** In addition to entrusting the municipal environmental sanitation department to collect and dispose of garbage, Hilong formulated the *Management Measures for Environmental Sanitation within Hilong Industrial Park* (《海隆工業園區環境衛生管理辦法》) in accordance with the *Administrative Measures for Living Garbage of Shanghai* (《上海市生活垃圾管理條例》). In order to reduce the generation of domestic waste from the source, Hilong actively implements the garbage classification and "Empty Plate Initiative" activities through various publicity methods, eliminating domestic waste from the very beginning.
- **General industrial waste:** According to the *Waste Disposal Measures* (《廢舊物資處理辦法》) formulated by the Group, Hilong sells recyclable solid wastes like scrap steel pipes and other waste materials and idle assets to qualified enterprises for recycle and reuse. The discarded polyethene products are crushed and converted into raw materials of polyethene products. Hilong stores other unrecyclable non-hazardous industrial wastes in a specific place and entrusts qualified professional bodies to deal with them. During the Reporting Period, Hilong saved approximately RMB 620,000 in raw material costs by crushing polyethene waste and reshape of polyethene containers from cylindrical to rectangular ones.
- **Hazardous waste:** Hilong established *Hazardous Waste Management Policy* (《危險廢物管理制度》) and *Accountability Mechanism for Staff of Hazardous Waste Related Positions* (《危險廢物崗位人員責任制》) and other regulations. It also set up assigned storage sites to store hazardous wastes and employed qualified professional bodies for unified treatment. In order to reduce the hazardous wastes generated, Hilong substituted the 200L packaging drums for solvents and resins in the liquid coating production line in the Class A workshop, into tankers and used closed pipes for material transportation during batch feeding. The tankers and pipes significantly reduced the frequency of touching when employees used the materials,

as well as the volatilization of volatile organic compounds and the generation of hazardous waste. During the Reporting Period, the disposal cost of hazardous waste and the annual procurement cost was saved by approximately RMB 400,000 and RMB 1.43 million, respectively. In addition, the annual consumption of 2-liter waste solvent drums was reduced by about 10,000 units.

During the Reporting Period, the total amount of hazardous and non-hazardous wastes produced and their respective intensity are shown below:

A1.3&A1.4 Hazardous/Non-hazardous Waste	2022	2021	2020	Unit
Total hazardous wastes produced	75.9	91.0	15.3	tonnes
Hazardous wastes intensity	0.020	0.031	0.006	tonnes/million RMB revenue
Total non-hazardous wastes produced	925.9	1020.7	410.0	tonnes
Non-hazardous wastes intensity	0.248	0.350	0.156	tonnes/million RMB revenue

Note: During the Reporting Period, the total amount of hazardous waste decreased because we changed the transportation of dangerous chemicals from barreling to tank truck, resulting in a decrease in the use of hazardous chemical packaging; in addition, the decrease in the total amount of non-hazardous wastes was mainly due to the fact that 2021's data included the amount of non-hazardous wastes remaining in 2020, while the data during the Reporting Period only included the disposal volume for year 2022.

4.3 Resources Utilization Efficiency

4.3.1 Energy Saving

The energy used by Hilong mainly includes natural gas used in the production, petrol and diesel consumed by forklifts, electricity used in production, office and life in the factory, natural gas, diesel, petrol and electricity used in the drilling process of oilfield service and marine engineering services, etc. Hilong strictly abides by the relevant laws and regulations in jurisdictions where it operates, including but not limited to *the Energy*

Conservation Law of the People's Republic of China (《中華人民共和國節約能源法》), etc. Meanwhile, we have developed our own *Environmental Protection and Energy Conservation Management Policy* (《環保節能管理制度》). The policy dictates monthly statistics on energy usage, vigorously promoting green office and green production, and actively carrying out energy-saving renovation projects to reduce energy consumption. During the Reporting Period, the direct/indirect energy consumption in total and intensity are shown below:

A2.1 Energy	2022	2021	2020	Unit
Natural gas	480	345	342	10,000 m ³
Diesel	92	62	49	tonnes
Gasoline	38	33	13	tonnes
Liquefied gas	6	5	6	tonnes
Total direct energy consumption	53,579	38,529	37,801	MWh
Electricity	36,602	42,839	31,945	MWh
Total indirect energy consumption	36,602	42,839	31,945	MWh
Total energy consumption	90,181	81,368	69,746	MWh
Energy consumption intensity	24.1	27.9	26.6	MWh/million RMB revenue

Note 1: Total energy consumption is calculated based on the consumption of natural gas, diesel, gasoline and liquefied gas and the amount of electricity purchased. Conversion factors come from Appendix 1: default values of fossil fuel and Appendix 2: default density of fuel oil of the Accounting Methods and Reporting Guide for Greenhouse Gas Emissions from Mechanical Equipment Manufacturing Enterprises (《機械設備製造企業溫室氣體排放核算方法與報告指南》) issued by the NDRC.

Note 2: During the Reporting Period, diesel consumption was increased compared with 2021 as the ownership of the storage and transportation business was transferred back to Hilong; In addition, the consumption of natural gas increased due to a significant increase in the production of drill pipes compared to last year.

4.3.2 Water Saving

Hilong strictly abides by the relevant laws and regulations regarding water resources in jurisdictions where it operates, including but not limited to *the Water Law of the People's Republic of China* (《中華人民共和國水法》), etc. Hilong uses municipal water and applicable local water sources. Hilong has developed its *Environmental Protection and Energy Conservation Management Policy* (《環保節能管理制度》) and *Management Rules on Water Utilisation* (《用水管理制度》) to ensure that its water usage and water conservation work are carried out in an effective and orderly manner.

Hilong continues to improve water-saving efficiency with management and work optimization:

Carry out water-saving related publicity and education works, encourage employees to participate in water-saving activities and emphasize the meaning and importance of water saving.

- Arrange regular maintenance for pipelines, valves and other facilities in the water supply system, check for leaks, solve problems detected in a timely manner, and repair the sudden failures of water pipes, valves and other facilities within the regulated time limit, to reduce water loss to the minimum.
- Use water-saving appliances for all domestic water facilities, and organize inspections and maintenance, to ensure that water facilities function well.
- Carry out statistical and dynamic analysis of water consumption for the purpose of ensuring rational water use.

During the Reporting Period, the Group's water consumption in total and intensity are shown below:

A2.2 Water	2022	2021	2020	Unit
Water consumption	106,060	81,043	75,149	tonnes
Water consumption intensity	28.4	27.8	28.7	t/ million RMB revenue

Note: During the Reporting Period, the amount of water consumption increased due to the extended hours of employees being stationed on-site for production and the significant increase in water used for cleaning and disinfection during the pandemic.

4.3.3 Packaging Materials

The packaging materials used by Hilong primarily include packing frames, iron packing belts, pipe protection ropes, wooden cases, paper cases, etc. The Group reused recyclable packaging materials and effectively reduced consumption.

During the Reporting Period, the total amount and intensity of packaging materials used in the Group's finished products are shown below:

A2.5 Packaging Materials	2022	2021	2020	Unit
Packaging materials consumption	275.6	215.0	268.2	tonnes
Packaging materials intensity	73.8	73.7	102.2	Kg/million RMB revenue

Note: During the Reporting Period, the consumption of finished product packaging materials increased due to a significant increase in the production of drill pipes compared to last year.

4.4 Environment and Natural Resources

Noise generated by Hilong primarily includes operation noise from machinery and equipment, aerodynamic noise from machines like blowers and air compressors, and transient high-decibel metal collision noise from the loading and unloading of steel pipes. In order to reduce the impact of noise on employees, the Group provided them with personal protective equipment and controlled the sources of noise pollution through the adoption of low-noise equipment, proper layout of equipment in workshops, installation of vibration pads or vibration dampers, equipment of blower silencers and wrapping of ducts etc.

Except for those disclosed above, Hilong won't cause any other major environmental impacts or make significant use of other environmental and natural resources in its operations.

4.5 Responding to Climate Change

In recent years, climate change has intensified its impact on the world. Based on the assessment results, the occurrence of extreme weather events such as typhoons and floods can have an impact on the normal business operations of the Group. Therefore, Hilong has strengthened its employees' knowledge reserve and capability related to extreme weather prevention and emergency handling in daily work, and the subsidiaries of the

Group have formulated specific emergency plans based on local climate conditions, for example Shanghai Drill Pipe have formulated the *Disposal Scheme for Flood Prevention, Typhoon Prevention and Rainstorm* (《防汛防台暴雨處置方案》); Pipeline Engineering have formulated the *Special Emergency Scheme for Typhoon and Flood Prevention* (《防台防汛專項應急預案》), and set up relevant leading groups for emergency handling and responding and preparing in advance, so as to ensure that they can respond quickly when encountering extreme weather and implement effective control and proper treatment.

Emergency Drills for Extreme Weather Events

In October 2022, to effectively prevent potential hazards such as power outages and water damage caused by typhoons, heavy rain, and floods, the Group conducted a special emergency plan drill for flood and typhoon prevention. On the day of the drill, emergency personnel from each unit gathered within 5 minutes to participate in the emergency work: the Quality Safety and Environmental Protection Department organized each department to carry out drainage operations in the production workshop, and maintenance personnel cooperated to check and repair electricity, and pump water. The remaining emergency personnel followed instructions to seal the surrounding doors of the workshop with flood control sandbags to prevent water from spreading into the warehouse. This drill effectively trained Hilong employees in dealing with extreme weather events, familiarized them with emergency rescue procedures, and improved their safety awareness.



Emergency Drill Against Extreme Weather

Appendix I: ESG Reporting Guidance Index

Aspect	Requirements	Chapter
KPI A1	Emissions	
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer.	4.2 Implement of Emission Management
A1.1	The types of emissions and respective emissions data.	4.2 Implement of Emission Management
A1.2	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	4.2.2 Greenhouse Gases
A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	4.2.3 Solid Waste
A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	4.2.3 Solid Waste
A1.5	Description of emissions target(s) set and steps taken to achieve them.	4.2 Implement of Emission Management
A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	4.2 Implement of Emission Management
KPI A2	Use of Resources	
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	4.3 Resources Utilization Efficiency
A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in' 000s) and intensity (e.g. per unit of production volume, per facility).	4.3.1 Energy Saving
A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	4.3.2 Water Saving
A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	4.3.1 Energy Saving
A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	4.3.2 Water Saving

A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	4.3.3 Packaging Materials
KPI A3	The Environment and Natural Resources	
General Disclosure	Policies on minimizing the issuer's significant impact on the environment and natural resources.	4.3 Resources Utilization Efficiency
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	4.4 Environment and Natural Resources
KPI A4:	Climate Change	
General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	4.5 Responding to Climate Change
A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	4.5 Responding to Climate Change
KPI B1	Employment	
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer.	3.1 Ensuring Employee Rights
B1.1	Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	3.1 Ensuring Employee Rights
B1.2	Employee turnover rate by gender, age group and geographical region.	3.1 Ensuring Employee Rights
KPI B2	Health and Safety	
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer.	3.1 Ensuring Employee Rights 3.3 Occupational Health and Safety
B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	3.3 Occupational

		Health and Safety
B2.2	Lost days due to work injury.	3.3 Occupational Health and Safety
B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	3.3 Occupational Health and Safety
KPI B3	Development and Training	
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	3.2 Promoting Talent Development
B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	3.2 Promoting Talent Development
B3.2	The average training hours completed per employee by gender and employee category.	3.2 Promoting Talent Development
KPI B4	Labour Standards	
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer.	3. Care for Employees 3.1 Ensuring Employee Rights
B4.1	Description of measures to review employment practices to avoid child and forced labour.	3.1 Ensuring Employee Rights
B4.2	Description of steps taken to eliminate such practices when discovered.	3.1 Ensuring Employee Rights
KPI B5	Supply Chain Management	
General Disclosure	Policies on managing environmental and social risks of the supply chain.	2.4 Supply Chain Management
B5.1	Number of suppliers by geographical region.	2.4 Supply Chain Management
B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	2.4 Supply Chain Management

B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	2.4 Supply Chain Management
B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	2.4 Supply Chain Management
KPI B6	Product Responsibility	
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer.	2.1 Focusing on Innovation 2.2 Optimization of Customer Service
B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	2.1.2 Perfection of Quality System
B6.2	Number of products and service related complaints received and how they are dealt with.	2.2 Optimization of Customer Service
B6.3	Description of practices relating to observing and protecting intellectual property rights.	2.3 Protection of Intellectual Property Rights
B6.4	Description of quality assurance process and recall procedures.	2.1.2 Perfection of Quality System
B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	2.2 Optimization of Customer Service
KPI B7	Anti-corruption	
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer.	2.5 Implement of Business Ethics
B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	2.5 Implement of Business Ethics
B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	2.5 Implement of Business Ethics

B7.3	Description of anti-corruption training provided to directors and staff.	2.5 Implement of Business Ethics
KPI B8	Community Investment	
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	2.6 Sincerely Giving Back to The Society
B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	2.6 Sincerely Giving Back to The Society
B8.2	Resources contributed (e.g. money or time) to the focus area.	2.6 Sincerely Giving Back to The Society

Appendix II: Reader's Feedback Form

Thank you for reading 2022 Environmental, Social and Governance (ESG) Report of Hilong Holding Limited. In order to provide more valuable information to the Group's stakeholders and improve its ability and level of fulfilling social responsibilities, we would welcome any feedback or suggestions you might have about this report.

You can send this form to any of the following:

Fax: +86-21-33851886

Postal address: No.1825, Luodong Road, Baoshan Industrial Zone, Shanghai, PRC

1. How would you rate your opinion of the Hilong Holding 2022 ESG Report?

Very High High Neutral Low Very Low

2. How would you rate your opinion of the economic, social and environmental responsibilities of Hilong Holding?

Economic responsibility	<input type="checkbox"/> Very High <input type="checkbox"/> High <input type="checkbox"/> Neutral <input type="checkbox"/> Low <input type="checkbox"/> Very Low
Social responsibility	<input type="checkbox"/> Very High <input type="checkbox"/> High <input type="checkbox"/> Neutral <input type="checkbox"/> Low <input type="checkbox"/> Very Low
Environmental responsibility	<input type="checkbox"/> Very High <input type="checkbox"/> High <input type="checkbox"/> Neutral <input type="checkbox"/> Low <input type="checkbox"/> Very Low

3. Please rate the effectiveness of this Report in reflecting the economic, social and environmental impact Hilong Holding has brought about through its social responsibility practices?

Excellent Good Fair Poor Terrible

4. How would you rate your opinion of the clarity, accuracy and completeness of the information, data and indicators this Report has disclosed?

Clarity	<input type="checkbox"/> Very High <input type="checkbox"/> High <input type="checkbox"/> Neutral <input type="checkbox"/> Low <input type="checkbox"/> Very Low
Accuracy	<input type="checkbox"/> Very High <input type="checkbox"/> High <input type="checkbox"/> Neutral <input type="checkbox"/> Low <input type="checkbox"/> Very Low
Completeness	<input type="checkbox"/> Very High <input type="checkbox"/> High <input type="checkbox"/> Neutral <input type="checkbox"/> Low <input type="checkbox"/> Very Low

5. Do you find this Report in easy-to-read contents and formatting?
Yes Neutral No

6. Feel free to share any comments or suggestions you may have on Hilong Holding and this report:

Thank you very much for your gracious gesture and valuable time!