

LESSO 联塑

CHINA LESSO GROUP HOLDINGS LIMITED

中國聯塑集團控股有限公司

Incorporated in the Cayman Islands with limited liability

於開曼群島註冊成立的有限公司

Stock Code 股份代號: 2128



2024

可持續發展報告

SUSTAINABLE DEVELOPMENT REPORT



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關於本報告

About This Report

本報告為中國聯塑發佈的 2024 年度可持續發展報告，重點展現了在環境、社會及管治方面的可持續發展理念、實踐、績效及願景。此前，本集團已發佈十份可持續發展 / 社會責任報告。

This report is the Sustainable Development Report issued by China Lesso for the year 2024, aiming to disclose the Group's sustainability philosophy, practices, performance, and aspirations in the areas of Environment, Social, and Governance (ESG). Prior to the report, the Group has published ten sustainable development/social responsibility reports.

時間範圍

Period Covered by This Report

本報告涵蓋的報告期間為 2024 年 1 月 1 日至 2024 年 12 月 31 日。

The reporting period covered by the report is from 1 January 2024 to 31 December 2024.

報告範圍

Scope of This Report

本報告範圍納入的實體與中國聯塑發佈的《中國聯塑集團控股有限公司 2024 年度報告》一致。

The scope of the report is consistent with that of the 2024 Annual Report published by China Lesso.

稱謂說明

Description of Reference

為便於表述和閱讀，本報告中的「中國聯塑集團控股有限公司及其子公司」以「中國聯塑」「本集團」或「我們」表示，部分子公司以簡稱表示，詳見下表。

For ease of expression and readability, "China Lesso Group Holdings Limited and its subsidiaries" is referred to as "China Lesso", "the Group", or "we/us/our" in the report. Subsidiaries are abbreviated as shown in the table below.

子公司名稱（部分） Subsidiary Names (Partial)	簡稱 Abbreviation
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	廣東聯塑 Guangdong Lesso
四川聯塑科技實業有限公司 Sichuan Lesso Technology Industrial Co., Ltd.	四川聯塑 Sichuan Lesso
南京聯塑科技實業有限公司 Nanjing Lesso Technology Industrial Co., Ltd.	南京聯塑 Nanjing Lesso
聯塑科技發展（武漢）有限公司 Lesso Technology Development (Wuhan) Co., Ltd.	武漢聯塑 Wuhan Lesso

子公司名稱（部分） Subsidiary Names (Partial)	簡稱 Abbreviation
湖南聯塑科技實業有限公司 Hunan Lesso Technology Industrial Co., Ltd.	湖南聯塑 Hunan Lesso
陝西聯塑科技實業有限公司 Shaanxi Lesso Technology Industrial Co., Ltd.	陝西聯塑 Shaanxi Lesso
雲南聯塑科技發展有限公司 Yunnan Lesso Technology Development Co., Ltd.	雲南聯塑 Yunnan Lesso
廣東聯塑日利門業有限公司 Guangdong Lesso Rili Door Industry Co., Ltd.	聯塑日利門業 Lesso Rili Door Industry
江蘇永葆環保科技股份有限公司 Jiangsu Yongbao Environmental Technology Co., Ltd.	永葆環保 Yongbao Environmental
廣東興發環境科技有限公司 Guangdong Xingfa Environmental Technology Co., Ltd.	興發環境 Xingfa Environmental

報告依據

Basis of Preparation

本報告依照香港聯合交易所有限公司（以下簡稱「聯交所」）《主板上市規則》附錄 C2《環境、社會及管治報告守則》履行披露責任，遵守重要性、量化、平衡性與一致性的匯報原則。同時，本報告參照氣候相關財務信息披露工作組（TCFD）和聯合國可持續發展目標（UN SDGs）框架進行披露。

The report has been prepared to fulfill the duty of disclosure in accordance with the Appendix C2 *Environmental, Social and Governance Reporting Code* to the *Rules Governing the Listing of Securities* on the Stock Exchange of Hong Kong Limited (hereinafter referred to as the "Stock Exchange"). Adhering to the principles of materiality, quantitative, balance, and consistency, the report also aligns with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and the United Nations Sustainable Development Goals (UN SDGs).

貨幣單位

Currency Unit

除特殊說明外，本報告所包含的所有貨幣單位均為人民幣。

Unless otherwise specified, the currency in which the financial data are presented in the report is Renminbi ("RMB").

報告獲取

Access to the Report

本報告提供中英版本供讀者參閱，內容若有出入，請以中文版本為準。您可登錄 <https://www.lesso.com/> 閱讀或下載本報告的電子版。如需獲取紙質版報告，您可通過 csr@lesso.com 與我們聯繫。

The report is available in both Chinese and English. In case of any discrepancies, the Chinese version shall prevail. The electronic version of the report can be accessed or downloaded at <https://www.lesso.com/>. For printed copies, please contact us at csr@lesso.com.

董事長致辭

Chairman's Message

“

站在 2024 年的歷史節點，我們身處一個充滿挑戰和機遇的時代，作為一家中國領先的大型管道建材產業集團，我們肩負著時代使命，始終以無畏的勇氣和堅韌的毅力砥礪前行，在高質量發展的同時肩負起環境、社會和治理責任。

Standing at this historical juncture of 2024, we find ourselves in an era brimming with both challenges and opportunities. As a leading large-scale industrial group of piping and building materials in China, we shoulder the mission of the times. With unwavering courage and steadfast perseverance, we fulfill our environmental, social, and governance (ESG) responsibilities while pursuing high-quality development.

”

在國際化征程中，我們堅守品質至上原則，以管道「連接」全球，牢牢錨定海外市場，加速海外市場佈局，不僅為當地帶來了眾多就業機會，也為全球消費者的美好生活注入了新活力、新動力。2024 年，我們充分把握海外龐大的內需市場和基建發展機遇，持續拓展東南亞、非洲、中亞、中東、中南美洲等市場，進一步加強品牌在海外市場的影響力及滲透力。

Amid our international endeavors, we value quality above all and "connect" the world with our pipes. As we accelerate our expansion into overseas markets, we have not only created numerous job opportunities for local communities but also infused new vitality and momentum into enhancing the lives of global consumers. In 2024, we capitalized on the vast domestic demand and infrastructure development opportunities in overseas markets. By expanding into regions such as Southeast Asia, Africa, Central Asia, the Middle East, and Central and South America, we further strengthened our brand's influence and penetration in international markets.

在中國，我們充分發揮自身管道產業專業的優勢，積極抓住加速管道系統建設和智能管網發展的行業機遇，深度挖掘增量空間。我們於多個領域推進創新，以「智造」加碼「製造」，升級打造「物聯網、智能製造和自動化生產」為一體的智能工廠，強化自身的核心競爭力及擴大市場佔有率。我們不斷拓展業務領域，通過橫向與縱向多元化的探索與創新，推動創新型產品在工業、農業、油氣輸送、市政、新風系統、消防等多個新興領域的應用。

In China, we leverage our strengths in the piping industry to seize opportunities in accelerating pipe system construction and the development of smart pipe networks and deeply exploring growth potential. We also promote innovation in multiple fields and upgrade "manufacturing" into "intelligent manufacturing". By creating smart factories that integrate "Internet of Things (IoT), intelligent manufacturing, and automated production", we manage to strengthen our core competitiveness and expand market share. Furthermore, we continuously expand our business scope and promote the application of innovative products in various emerging fields such as industry, agriculture, oil and gas transmission, municipal engineering, fresh air systems, and fire protection through horizontal and vertical diversification exploration and innovation.

我們致力於以企業文化為基礎，圍繞本集團短、中、長期發展目標，以利益相關方管理為抓手，系統化展開 ESG 工作規劃及實踐，實現戰略、經營、文化的高度融合。2024 年，我們將 ESG 與各業務部門的工作掛鉤，從管治架構搭建、管理指標擬定等方面逐步推進本集團 ESG 工作。在企業管治方面，我們始終堅守穩健經營發展原則，建立完善的風險管治架構，營造公平、誠信、廉潔的企業文化，以良好的企業治理推動本集團健康長遠發展。在環境管理方面，我們持續完善環境管理體系，推動生產方式向綠色、精細化轉型，構建從集團到各子公司的碳管理組織架構，制定碳管理制度及實施細則，將節能減排工作納入業務部門的績效考核指標之一，定期展開氣候相關風險與機遇的評估，持續提升本集團氣候適應力和氣候風險管理能力。在社會方面，我們切實保障員工一切合法權益，不斷完善員工晉升與培訓機制，積極投身多元包容、開放進取的企業文化建設。與此同時，我們通過打造負責任的供應鏈，在保障供應商與經銷商的产品與服務質量的同時，協助供應商提升其環境社會表現，為可持續的产品與服務創造條件。

Building on our corporate culture and aligning with the Group's development objectives in short, medium, and long terms, we strive to systematically advance ESG planning and practices through stakeholder management and achieve a high level of integration among strategy, operations, and culture. In 2024, we linked ESG to the work of various business departments and gradually advanced the Group's ESG efforts from aspects such as governance structure development and management indicator formulation. In terms of corporate governance, we consistently adhere to the principles of steady operations and development. By establishing a sound risk governance framework and fostering a fair, honest, and clean corporate culture, we strive to promote the healthy and long-term development of the Group through effective corporate governance. In terms of environmental management, we continuously improve our environmental management system and promote a shift toward green, refined production methods. We have established a carbon management organizational structure covering the Group and its subsidiaries, formulated carbon management systems and implementation rules, and incorporated energy conservation and emission reduction into the performance evaluation metrics of business departments. We regularly assess climate-related risks and opportunities and continuously enhance the Group's climate resilience and risk management capabilities. In terms of social responsibility, we effectively protect the legitimate rights and interests of all employees, continuously improve the employee promotion and training mechanism, and actively engage in building a diverse, inclusive, and ambitious corporate culture. Meanwhile, by fostering a responsible supply chain, we ensure the quality of products and services from suppliers and distributors and assist suppliers in improving their environmental and social performance, thereby creating conditions for sustainable products and services.

重任在肩，我們擁抱未來，創造無限可能。我們將堅持「為健康美好空間永續」的品牌承諾，以更加堅定的信心、更加堅實的步伐，在穩健中求創新，在創新中謀發展。我們亦將持續深化智能製造與綠色製造，深挖主產業機遇，加強多元業務協同，為每位居民提供更好的城市建設和生活空間，營造綠色宜居的生活氛圍，以負責任的行動為社會的可持續發展傳遞源源動力。

With great responsibilities on our shoulders, we embrace the future and create boundless possibilities. Upholding our brand commitment to "Sustaining a Healthy and Beautiful Space", we forge ahead with confidence and determination to pursue innovation and steady development. We will continue to deepen intelligent and green manufacturing, explore opportunities in our core business, and strengthen the synergy of diversified business segments. By providing better urban construction and living spaces for every resident, we aim to foster a green, livable atmosphere and propel social sustainable development through responsible actions.

董事會聲明

Statement from the Board

中國聯塑董事會高度認同環境、社會及管治（ESG）對本集團長久穩健經營的重要性，嚴格遵循香港聯交所《環境、社會及管治報告守則》的各項要求，將 ESG 管理融入本集團運營，持續完善本集團 ESG 治理體系和管理機制，並將「可持續發展戰略與管理」相關議題納入本集團管理中。

The Board of Directors ("the Board") of China Lesso fully recognizes the importance of ESG principles to the Group's long-term and stable operations. In strict compliance with the *Environmental, Social and Governance Reporting Code* issued by the Stock Exchange of Hong Kong Limited, we integrate ESG management into the Group's operations. We also continuously improve the Group's ESG governance system and management mechanisms, and incorporate issues related to "Sustainability Strategy and Management" into the Group's management.

董事會對 ESG 事宜的監管

The Board's Oversight of ESG Matters

董事會作為本集團可持續發展管治體系的最高決策機構，對本集團 ESG 事務負最終的整體責任，並對本集團 ESG 管治進行持續監督。董事會定期召開董事會會議，對本集團 ESG 事項和目標進度進行監督和檢查，並負責審批本集團可持續發展戰略、規劃和年度工作計劃、目標、重要性議題及 ESG 重要風險。

As the highest decision-making body of the Group's sustainability governance system, the Board bears ultimate overall responsibility for the Group's ESG matters and continuously oversees its ESG governance. The Board regularly convenes meetings to monitor and review the progress of the Group's ESG matters and objectives. It is also responsible for approving the Group's sustainability strategies, plans, annual work plans, objectives, material issues, and material ESG risks.

董事會的 ESG 方針及策略

The Board's ESG Policies and Strategies

董事會重視 ESG 相關風險和機遇所帶來的潛在影響，參與不同 ESG 風險的重要性評估過程，識別 ESG 重要性議題及管理 ESG 事宜的策略重點。董事會結合 ESG 風險管控的重點領域設置適當和有效的 ESG 風險管理和內部監督機制，定期檢查和監督 ESG 工作完成情況，持續改進和提升 ESG 管理水平。

The Board attaches importance to the potential impacts of ESG-related risks and opportunities. It actively engages in the materiality assessment process for various ESG risks, and identifies material ESG issues and strategic priorities for managing ESG matters. Focusing on key areas of ESG risk control, the Board establishes appropriate and effective ESG risk management and internal supervision mechanisms. In addition, the Board regularly reviews and monitors the progress of ESG efforts to continuously improve ESG management capabilities.

董事會按照 ESG 相關目標檢討進度

The Board's Review of ESG-Related Targets and Progress

本集團遵循聯交所《環境、社會及管治報告守則》的要求，已設定覆蓋溫室氣體排放、廢棄物管理、水資源使用、能源消耗等關鍵 ESG 目標，董事會已就相關目標的設定及進度進行審閱及討論。

In accordance with the requirements of the *Environmental, Social and Governance Reporting Code* issued by the Stock Exchange, the Group has established key ESG targets covering areas such as greenhouse gas emissions, waste management, water resource usage, and energy consumption. The Board has reviewed and discussed the setting of these targets and progress toward achieving them.

本集團 2024 年可持續發展報告已由董事會於 2025 年 3 月 28 日審閱批准。

The *2024 Sustainable Development Report* of the Group has been reviewed and approved by the Board on 28 March, 2025.

關於我們

About Us

集團概況

Group Profile

中國聯塑集團控股有限公司（簡稱：中國聯塑，股份代號：02128.HK）是中國領先的大型管道建材產業集團。經過逾 38 年的發展，本集團業務涵蓋管道、建材家居、環保、新能源、供應鏈服務平台等板塊，產品涉及管道、新能源、水暖衛浴、整體廚房、整體門窗、建築裝備、淨水設備、防水與密封膠、消防器材、閥門、電線電纜、開關電氣、環境保護、農業設施、海洋養殖網箱等領域。2024 年，本集團營業收入達 270.26 億元人民幣。

LESSO (Stock Code: 02128.HK) is a leading large-scale industrial group that manufactures piping and building materials in China. With over 38 years of development, LESSO has developed its business in multiple sectors, including piping systems, building materials and home improvement, environmental protection, new energy, and supply-chain service platforms. It offers various products such as pipes, new energy solutions, sanitary ware, integrated kitchen cabinets, integrated doors and windows, construction equipment, water purifiers, water-proofing materials and sealants, fire-fighting equipment, valves, wires and cables, switches and sockets, items for environmental protection, agricultural facilities, and ocean aquaculture cages. LESSO achieved an operating revenue of USD 3.766 billion dollar in 2024.

隨著國際化、全球化進程步伐的推進，中國聯塑已建立超過 30 個先進的生產基地，分佈於全國 19 個省份及海外國家，產業及銷售網絡覆蓋亞洲、非洲、北美洲、南美洲、歐洲等區域。中國聯塑不斷完善戰略佈局，拓寬銷售網絡和市場空間，能夠及時、高效地為顧客提供豐富的產品和專業的服務。

With the advancement of internationalization and globalization, LESSO has established more than 30 advanced production bases in 19 provinces across China and some foreign countries, and its industrial and sales networks cover regions and countries in five continents: Asia, Africa, North America, South America, and Europe. LESSO remains committed to improving sales networks and expanding its market reaches, enabling it to provide customers with diverse products and professional services in a timely and efficient manner.

中國聯塑建有集團研究院，擁有各類科研人員 1,000 多名，現擁有 43 家國家高新技術企業，建有 1 個國家認定企業技術中心、2 個博士後科研工作站、6 個 CNAS 國家認可實驗室，1 個廣東省塑料成型加工技術企業重點實驗室、1 個廣東省高性能塑料管道工業設計中心和 1 個廣東省塑料管道產業技術創新聯盟。目前，中國聯塑擁有和正在申請的專利有 3,100 餘項。科研成果先後入選國家火炬計劃項目、國家重點新產品、全國建設行業科技成果推廣項目和政府綠色採購清單；先後被國家有關部門授予製造業單項冠軍示範企業、國家知識產權示範企業、中國建設科技自主創新優勢企業、建設部產業化示范基地等；榮獲中國輕工業聯合會科技進步一等獎、教育部科技進步一等獎、廣東省科技進步一等獎、廣東省科學技術獎技術發明獎一等獎、中國專利獎優秀獎、中國質量獎提名獎、廣東省政府質量獎等獎項。

LESSO has established its R&D center with over 1,000 scientific researchers. It now possesses forty-three national high-tech enterprises, one nationally accredited enterprise technology center, two post-doctoral research centers, six nationally accredited CNAS laboratories, one key laboratory for plastic molding processing technology enterprise in Guangdong Province, and one industrial technology innovation alliance for plastic piping in Guangdong Province. LESSO now boasts over 3,100 patents (some of them are pending). Its scientific achievements are included in the National Torch Program Project, the National Key New Products, the Scientific and Technological Achievements Promotion Project in the National Construction

Industry, and the Government Green Procurement List. LESSO has been awarded many honorary titles by relevant national departments such as the National Manufacturing Individual Champion Demonstration Enterprise, the National Intellectual Property Demonstration Enterprise, the China Construction Science and Technology Independent Innovation Advanced Enterprise, and the Industrialization Demonstration Base of the Ministry of Construction. It has won numerous prizes, including the First Prize for Scientific and Technological Progress of the China National Light Industry Council, the First Prize for Scientific and Technological Progress of the Ministry of Education of PRC, the First Prize for Scientific and Technological Progress in the Guangdong Province, the First Prize for Technological Invention in Guangdong Science and Technology Award, the Excellence Award of China Patent Award, the Honorable Mention Award of China Quality Award, and the Guangdong Provincial Government Quality Award.

現階段，中國聯塑擁有超過 10,000 種產品，是中國管道建材領域產品體系最齊全的生產商。中國聯塑的產品被廣泛應用於家居裝修、民用建築、市政給水、排水、能源管理、電力通信、燃氣、消防、環境保護以及農業、海洋養殖等領域。

LESSO provides over 10,000 products as a manufacturer with a comprehensive range of piping and building materials. These products are widely applied in diverse fields such as home improvement, civil construction, municipal water supply, drainage, energy management, power supply and telecommunications, gas supply, fire fighting, environmental protection, agriculture, and ocean aquaculture.

未來，中國聯塑將繼續秉持「美好洞見未來」的品牌口號，踐行「為健康美好空間永續」的品牌承諾，為每一個人提供更好的城市建設和生活空間，營造綠色、宜居、高效的理想城市，集結全社會共同的智慧，讓「健康美好空間」在城市中蔓延，在生活中永續。

True to its brand slogan of "Envisioning the Better, Building the Future", and its brand commitment of "Sustaining a Healthy and Beautiful Space", LESSO remains committed to providing everyone with better urban construction and living environments, and to creating ideal cities featuring greenness, livability, and efficiency. With collective wisdom of all sectors of society, LESSO strives to create and maintain healthy and beautiful spaces where people can enjoy happiness and stay healthy anytime and anywhere in their urban lives.

管道產業

Pipes & Pipe Fittings

塑料管道和管件 / 地下綜合管廊 / 農業 / 安防 / 閥門

Plastic pipes and fittings / Underground utility tunnels / Agriculture / Security / Valves

環保產業

Environmental Protection

環境設計 / 環境檢測 / 工業固危廢處理等

Environmental design / Environmental testing / Industrial solid and hazardous waste treatment, etc.

建材家居

Building Materials and Home Improvement

整體廚房 / 整體衣櫃 / 整體門窗 / 整體衛浴 / 淨水機 / 木門 / 防水密封膠 / 電線電纜 / 照明 / 開關電器 / 新風系統 / 建築設備

Integral kitchens / Integrated wardrobes / Integrated doors & windows / Integrated sanitary / Water purifiers / Wooden doors / Waterproof sealants / Wires & cables / Lighting / Electrical switches / Fresh air systems / Building equipment

其他

Others

供應鏈服務平台 / 新能源等

Supply chain service platform / New energy, etc.

旗下品牌
Our Brands

LESSO 集團旗下品牌
Brands under China Lesso Group

LESSO 联塑

- 塑料管道
Plastic piping
- 水暖衛浴
Plumbing & sanitary ware
- 閥門
Valves
- 海洋養殖網箱
Mariculture cages
- 消防器材
Fire services
- 防水密封膠
Waterproofing sealants

LESSO 领尚

- 整體廚房
Integrated kitchens
- 整體衣櫃
Integrated wardrobes
- 木門
Wooden doors
- 集成供暖系統
Integrated heating systems
- 淨水機
Water purifiers
- 整體門窗
Integrated doors and windows

- 石英石
Quartzite

渠道與服務
Channels & Services

- 衛浴潔具
Sanitary ware
- 實現資源共享
Resource sharing
- 提供優質商貿服務
High-quality services for commerce and trade



- 環保諮詢
Environmental consultancy
- 運營
Operation
- 環境監理
Environmental impact supervision
- 施工
Construction
- 環評
Environmental impact assessment
- 環保設備制造
Manufacturing of environmental protection equipment

LESSO 联塑班皓

- 光伏組件
Photovoltaic modules
- 儲能產品
Energy storage products
- 工程服務
Engineering services



- 防水產品
Waterproofing products
- 標準化施工
Standardized construction

景興建科 | LESNTEC

- 鋁模板材
Aluminium frames
- 爬架
Scaffolding
- 產業工人
Industrial workers
- 集成衛浴
Integrated sanitary solutions



- 新風淨化產品
Fresh air systems and air purifiers



- 住宅內裝設備工業化
Industrialization of housing interior decoration equipment



- 鋼塑複合管
Steel plastic composite pipes
- 鍍鋅管
Galvanized pipes



- 衛生材料
Hygiene materials
- EVA 光伏保護膜
EVA films for photovoltaic cell protection

EAGO 益高

- 衛浴潔具
Sanitary ware

- 光伏售後服務技術諮詢
Technical consultancy - after sales service for photovoltaic products

- 光伏支架系統
Photovoltaic support systems

企業文化
Corporate Culture



品牌發展
Brand Development

LESSO 寓意著傳承、輕鬆、安全、分享、開放的企業文化理念。紅色的標識象徵生生不息的生命，體現中國聯塑的活力激情、朝氣蓬勃、欣欣向榮，寓意著聯塑人孜孜不倦地追求、開創日蒸益上的宏圖事業。

LESSO means the Group's culture concepts of link, easiness, safety, sharing and openness. The red logo symbolizes the endless life, reflects vitality, passion, youthful spirit and prosperity of LESSO and means LESSO people's sedulous pursuit of grand prospects.



2024 亮點績效

Highlight Performance in 2024



2024 責任榮譽

Responsibility Honors in 2024

可持續發展獎項 Awards for Sustainability	
MSCI ESG 評級 MSCI ESG Rating	BBB
HSSUS 恒生可持續發展企業指數 Hang Seng Corporate Sustainability Index (HSSUS)	BBB+
標普全球企業可持續發展評估 S&P Global Corporate Sustainability Assessment	可持續發展年鑑（中國版）入選企業 Selected in the <i>Sustainability Yearbook</i> (China Edition) 37
華證 ESG 評級 Sino-Securities ESG Rating	A (87.5)
碳披露项目（CDP） Carbon Disclosure Project (CDP)	C
Wind ESG 評級 Wind ESG Rating	A
2024 格隆匯金格獎——ESG 企業及機構榜單 GuruClub Jinge Award-ESG Enterprise and Institution List in 2024	ESG 可持續發展卓越企業 Excellent Enterprise for ESG Sustainable Development

環保榮譽 Honors for Environmental Efforts		
公司名稱 Company Name	2024 年所獲榮譽 Honors Obtained in 2024	頒獎單位 Presented By
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	中國管道管材十大綠色品牌 Top 10 Green Brands in China's Piping and Pipe Materials Industry	招投標供應鏈品牌推介平台 National Bidding Supply Chain Brand Promotion Platform
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	中國綠色環保塑料管道十大品牌 Top 10 Eco-Friendly Plastic Pipe Brands in China	中國採購與招標網、中國名企排行網 ChinaBidding.com and Paihang360.com
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	中國綠色環保建材產品 Eco-Friendly Building Materials Product in China	中國企業質量品牌認證監督中心、中國企業信用評價管理中心 China Enterprise Quality Certification Supervision & Management Center and China Enterprise Credit Rating Center
廣東興發環境科技有限公司 Guangdong Xingfa Environmental Technology Co., Ltd.	2023 年度廣東省生態環境保護優秀示範工程 Excellent Demonstration Project for Ecological Environmental Protection of Guangdong Province in 2023	廣東省環境保護產業協會 Guangdong Association of Environmental Protection Industry
廣東聯塑日利門業有限公司 Guangdong Lesso Rili Door Industry Co., Ltd.	廣東省綠色工廠 Green Factory in Guangdong Province	廣東省工業和信息化廳 Department of Industry and Information Technology of Guangdong Province
四川聯塑科技實業有限公司 Sichuan Lesso Technology Industrial Co., Ltd.	國家級綠色工廠 National Green Factory	工業和信息化部 Ministry of Industry and Information Technology
聯塑科技發展（貴陽）有限公司 Lesso Technology Development (Guiyang) Co., Ltd.	貴州省節能減排示範單位 Model Unit of Energy Conservation and Emission Reduction in Guizhou Province	貴州省節能減排研究會 Guizhou Energy Conservation & Emission Reduction Research Society
陝西聯塑科技實業有限公司 Shaanxi Lesso Technology Industrial Co., Ltd.	零碳或近零碳工廠 Zero or Near-Zero Carbon Factory	節能綜合利用處 Department of Energy Conservation and Comprehensive Utilization
烏魯木齊聯塑科技發展有限公司 Urumqi Lesso Technology Development Co., Ltd.	國家級綠色工廠 National Green Factory	工業和信息化部 Ministry of Industry and Information Technology
聯塑市政管道（河北）有限公司 Lesso Municipal Pipes (Hebei) Co., Ltd.	2024 年滄州市綠色工廠 Green Factory of Cangzhou in 2024	滄州市工業和信息化局 Cangzhou Municipal Bureau of Industry and Information Technology

安全榮譽 Honors for Safety		
公司名稱 Company Name	2024 年所獲榮譽 Honors Obtained in 2024	頒獎單位 Presented By
聯塑科技發展（貴陽）有限公司 Lesso Technology Development (Guiyang) Co., Ltd.	貴州省健康企業 Healthy Enterprise in Guizhou Province	健康貴州推進委員會辦公室 Office of the Healthy Guizhou Promotion Committee

產品質量榮譽 Honors for Product Quality		
公司名稱 Company Name	2024 年所獲榮譽 Honors Obtained in 2024	頒獎單位 Presented By
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	中國輕工業聯合會科學技術進步獎 二等獎（塑料管道模具高效高精度智能化生產關鍵技術及產線） Second Prize for Scientific and Technological Progress Award, China National Light Industry Council (Key Technologies and Production Line for High-Efficiency, High-Precision, and Intelligent Manufacturing of Plastic Pipe Molds)	中國輕工業聯合會 China National Light Industry Council
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	廣東省輕工業聯合會科學進步獎 一等獎（PVC 管道高效節能成型加工技術及裝備研發項目） First Prize for Scientific and Technological Progress Award, Guangdong Light Industry Council (R&D Project of High-Efficiency and Energy-Saving PVC Pipe Molding Technology and Equipment)	廣東省輕工業聯合會 Guangdong Light Industry Council
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	廣東省輕工業聯合會科學進步獎 三等獎（礦用鋼簾線增強聚乙烯耐磨複合管製造關鍵技術的研發及產業化） Third Prize for Scientific and Technological Progress Award, Guangdong Light Industry Council(R&D and Industrialization of Key Technologies for Mining Steel Cord Reinforced Polyethylene Wear-Resistant Composite Pipes)	廣東省輕工業聯合會 Guangdong Light Industry Council
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	全國「質量月」質量誠信倡議企業 Enterprises for Promoting Quality and Integrity during the National "Quality Month"	中國質量檢驗協會 China Association for Quality Inspection
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	「全國質量檢驗穩定合格產品」調查匯總和質量信譽承諾公告證明 Survey Summary and Quality Commitment Announcement for the "National Certificate of Stable and Qualified Products for Quality Inspection"	中國質量檢驗協會 China Association for Quality Inspection
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	2024 年《全國水利系統招標產品重點採購目錄》 <i>Key Procurement Catalog of Bidding Products for the National Water Conservancy System</i> in 2024	中國水利水電出版社有限公司 China Water & Power Press

產品質量榮譽 Honors for Product Quality		
公司名稱 Company Name	2024 年所獲榮譽 Honors Obtained in 2024	頒獎單位 Presented By
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	第三屆塑料工業大會暨品牌盛典「塑業奧斯卡」- 材料製件傑出影響力品牌 Outstanding Influence Brand in Materials and Components at the 3rd Plastics Industry Conference and Brand Ceremony – Oscars of Plastics	塑料工業大會組委會 Plastics Industry Conference Organizing Committee
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	塑料管道優質服務獎 Plastic Piping Excellent Service Award	中國採購與招標網、中國名企排行網 ChinaBidding.com and Paihang360.com
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	企業首席質量官質量創新十大優秀案例 Top 10 Outstanding Cases of Quality Innovation by Chief Quality Officers	佛山市質量強市工作領導小組辦公室、 佛山市品牌發展研究院 Office of the Leading Group for Building Foshan into A Strong City in Quality and Foshan Brand Development Research Institute
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	佛山市企業首席質量官質量創新十大優秀案例 Top 10 Outstanding Cases of Quality Innovation by Chief Quality Officers in Foshan	佛山市 2024 年質量品牌大會 2024 Foshan Quality Brand Conference
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	廣東省輕工業聯合會科學技術進步獎一等獎 - 水上抗風浪平台系統用管材及配件的研發及應用 First Prize for Scientific and Technological Progress Award, Guangdong Light Industry Council (R&D and Application of Pipes and Fittings for Offshore Wind and Wave-Resistant Platform Systems)	廣東省輕工業聯合會 Guangdong Light Industry Council
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	全國產品和服務質量誠信品牌 National Product and Service Quality Integrity Brand	中國質量檢驗協會 China Association for Quality Inspection
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	中國優質產品獎 China High-Quality Product Award	中國企業質量品牌認證監督中心、中國企業信用評價管理中心 China Enterprise Quality Certification Supervision & Management Center and China Enterprise Credit Rating Center
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	質量、服務、信譽 AAA 級企業 AAA-Level Enterprise in Quality, Service, and Reputation	中國企業質量品牌認證監督中心、中國企業信用評價管理中心 China Enterprise Quality Certification Supervision & Management Center and China Enterprise Credit Rating Center
茂名聯塑建材有限公司 Maoming Lesso Building Materials Co., Ltd.	廣東省輕工業優秀質量管理小組金獎 Gold Award for Outstanding Quality Management Team, Guangdong Light Industry Council	廣東省輕工業聯合會質量專業委員會 Quality Professional Committee of Guangdong Light Industry Council
聯塑市政管道（河北）有限公司 Lesso Municipal Pipes (Hebei) Co., Ltd.	河北省質量強省建設領軍企業 Leading Enterprises for Building Hebei into A Strong Province in Quality	河北省質量強省戰略領導小組 Leading Group for Building Hebei into A Strong Province in Quality

社會榮譽 Social Honors		
公司名稱 Company Name	2024 年所獲榮譽 Honors Obtained in 2024	頒獎單位 Presented By
中國聯塑集團控股有限公司 China Lesso Group Holdings Limited	《財富》中國 500 強第 450 位 Ranked 450th in the <i>Fortune China</i> 500	《財富》中國 <i>Fortune China</i>
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	佛山市外商投資企業協會 35 週年特別致敬 Special Tribute for the 35th Anniversary of the Foshan Association of Enterprises with Foreign Investment	佛山市外商投資企業協會 Foshan Association of Enterprises with Foreign Investment
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	廣東省製造業民營企業 100 強第 29 位 Ranked 29th among the Top 100 Private Manufacturing Enterprises in Guangdong Province	廣東省工商業聯合會 Guangdong Federation of Industry and Commerce
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	廣東省百強民營企業第 46 位 Ranked 46th among the Top 100 Private Enterprises in Guangdong Province	廣東省工商業聯合會 Guangdong Federation of Industry and Commerce
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	中國民營企業 500 強第 445 位 Ranked 445th among the Top 500 Private Enterprises in China	中華全國工商業聯合會 All-China Federation of Industry and Commerce
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	中國製造業民營企業 500 強第 296 位 Ranked 296th among the Top 500 Private Manufacturing Enterprises in China	中華全國工商業聯合會 All-China Federation of Industry and Commerce
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	廣東省製造業企業 500 強第 19 位 Ranked 19th among the Top 500 Manufacturing Enterprises in Guangdong Province	廣東省製造業協會、廣東省發展和改革研究院、暨南大學產業經濟研究院 Guangdong Manufacturers Association, Guangdong Development and Reform Research Institute, and Institute of Industrial Economics, Jinan University
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	樂善好施 - 熱心公益 Philanthropic and Public Welfare Contributor	仙湧村民委員會 Xianchong Village Committee
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	中國管道管材行業競爭力企業百強 Top 100 Competitive Enterprises in China's Piping and Pipe Materials Industry	招投標品牌調研公示服務平台 Bidding Brand Research and Publicity Service Platform
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	中國塑料管道十大品牌 Top 10 Brands in China's Plastic Piping Industry	招投標品牌調研公示服務平台 Bidding Brand Research and Publicity Service Platform
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	中國管道招標採購十大推薦品牌 Top 10 Recommended Brands for China's Piping Procurement and Bidding	招投標品牌調研公示服務平台 Bidding Brand Research and Publicity Service Platform
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	中國塑料管道供應商綜合實力 50 強 Top 50 Suppliers for Comprehensive Strength in China's Plastic Piping Industry	招投標品牌調研公示服務平台 Bidding Brand Research and Publicity Service Platform
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	中國管道十大領軍企業 Top 10 Leading Enterprises in China's Piping Industry	招投標品牌調研公示服務平台 Bidding Brand Research and Publicity Service Platform
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	中國塑料管道十大品牌 Top 10 Brands in China's Plastic Piping Industry	招投標供應鏈品牌推介平台 National Bidding Supply Chain Brand Promotion Platform
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	中國燃氣管道十大品牌 Top 10 Brands in China's Gas Piping Industry	招投標供應鏈品牌推介平台 National Bidding Supply Chain Brand Promotion Platform

社會榮譽 Social Honors		
公司名稱 Company Name	2024 年所獲榮譽 Honors Obtained in 2024	頒獎單位 Presented By
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	政府採購工程管材十大品牌 Top 10 Brands for Government Procurement of Engineering Pipes	招投標供應鏈品牌推介平台 National Bidding Supply Chain Brand Promotion Platform
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	中國管道管材招標採購十大推薦品牌 Top 10 Recommended Brands for China's Piping and Pipe Materials Procurement and Bidding	招投標供應鏈品牌推介平台 National Bidding Supply Chain Brand Promotion Platform
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	佛山市知識產權創新品牌企業 Foshan Intellectual Property Innovation Brand Enterprise	佛山市質量強市工作領導小組辦公室、佛山市知識產權工作聯席會議辦公室 Office of the Leading Group for Building Foshan into a Strong City in Quality and Office of Foshan Intellectual Property Joint Conference
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	塑料管道十大品牌 Top 10 Brands in Plastic Piping	中國採購與招標網、中國名企排行網 ChinaBidding.com and Paihang360.com
廣東聯塑科技實業有限公司 Guangdong Liansu Technology Industrial Co., Ltd.	中國工程建設重點推廣應用產品 Key Products for Promotion and Application in China's Engineering Construction	中國企業質量品牌認證監督中心、中國企業信用評價管理中心 China Enterprise Quality Certification Supervision & Management Center and China Enterprise Credit Rating Center
福建聯塑新材料科技有限公司 Fujian Lesso New Materials Technology Co., Ltd.	培育工業龍頭 Industrial Leader Cultivated	福州市工業和信息化局 Fuzhou Municipal Bureau of Industry and Information Technology
南京聯塑科技實業有限公司 Nanjing Lesso Technology Industrial Co., Ltd.	2024 年江蘇省研究生工作站 Jiangsu Provincial Graduate Workstation in 2024	江蘇省教育廳、江蘇省科技廳 Department of Education of Jiangsu Province and Department of Science and Technology of Jiangsu Province
河南聯塑實業有限公司 Henan Lesso Industrial Co., Ltd.	周口市科技進步獎 Science and Technology Progress Award of Zhoukou	河南省科學技術局 Henan Provincial Bureau of Science and Technology
江西聯塑科技實業有限公司 Jiangxi Lesso Technology Industrial Co., Ltd.	南昌市重大科技攻關項目 Major Science and Technology Research Project of Nanchang	南昌市科學技術局 Nanchang Municipal Bureau of Science and Technology
四川聯塑科技實業有限公司 Sichuan Lesso Technology Industrial Co., Ltd.	德陽市第十四批院士專家工作站 14th Batch of Academician and Expert Workstations of Deyang	德陽市人民政府 People's Government of Deyang Municipality
聯塑科技發展（貴陽）有限公司 Lesso Technology Development (Guiyang) Co., Ltd.	貴州省履行社會責任五星級企業 Five-Star Enterprise for Fulfilling Social Responsibility in Guizhou Province	貴州省工業與知識經濟聯合會 Guizhou Federation of Industry and Knowledge Economy
中油佳匯（廣東）防水股份有限公司 China National Petroleum (Guangdong) Waterproof Co., Ltd.	2024 年建設行業科技成果推廣項目 Construction Industry Science and Technology Achievement Promotion Project in 2024	住房和城鄉建設部 Ministry of Housing and Ur-ban-Rural Development
中油佳匯（廣東）防水股份有限公司 China National Petroleum (Guangdong) Waterproof Co., Ltd.	2024 年度廣東省知識產權示範企業 Intellectual Property Demonstration Enterprise of Guangdong Province in 2024	廣東知識產權保護協會 Guangdong IP Protection Association
中油佳匯（廣東）防水股份有限公司 China National Petroleum (Guangdong) Waterproof Co., Ltd.	佛山市先進環保防水材料工程技術研究中心 Foshan Advanced Eco-Friendly Waterproof Materials Engineering Technology Research Center	佛山市科學技術局 Foshan Municipal Bureau of Science and Technology

創新領航 築牢工業安全防線

Building a Robust Industrial Safety Line with Innovation Leading the Way

黨的二十屆三中全會提出「健全因地制宜發展新質生產力體制機制」，中國聯塑作為塑料管道行業的領軍企業，始終將科技創新置於戰略核心地位，秉持「創新驅動發展」的核心理念，不斷提升技術研發實力，在煤礦業、家裝工程、市政工程、核電安全等領域持續推進研發創新，以新質生產力賦能工業高質量發展。

2024 年，中國聯塑持續加大工業管道研發和技術創新力度，實現「礦用鋼簾線增強聚乙烯耐磨複合管關鍵技術的研發及產業化」等重大技術突破，打破多項行業領域技術壁壘，推出核電廠用聚乙烯（PE）管材及管件等系列創新型產品，獲得「2024 中國大企業創新 100 強」「廣東省輕工業聯合會科技進步獎」「廣東省省級工業設計中心」等獎項榮譽。

國際領先煤礦用複合管，為工業安全提供堅實保障 International Leading Composite Pipes for Coal Mining to Ensure Industrial Safety



中國聯塑依托一體化、全方位的科技創新體系，推出「礦用鋼簾線增強聚乙烯耐磨複合管關鍵技術的研發及產業化」「煤礦用連續玻纖帶纏繞增強聚乙烯複合管的研發及產業化」兩項創新成果，經專家委員會鑒定，均達到國際領先水平。

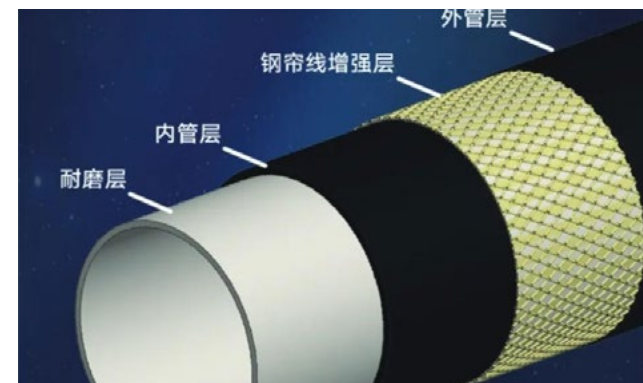
Leveraging its integrated, all-encompassing technological innovation system, China Lesso has introduced two groundbreaking achievements: "R&D and Industrialization of Key Technologies for Mining Steel Cord Reinforced Polyethylene Wear-Resistant Composite Pipes" and "R&D and Industrialization of Continuous Glass Fiber Tape-Reinforced Polyethylene Composite Pipes for Coal Mining". Both innovations have been recognized by an expert committee as reaching international leading standards.

為解決礦產開採過程中管道存在的耐腐蝕及承壓不足問題，中國聯塑首次實現了上述兩項創新成果的規模化生產，填補了高性能耐磨礦用管道市場、高壓煤礦用管道市場的空白，為相關行業提供了更安全可靠的管道系統解決方案，從源頭上提高管道的安全性能，減少因材料腐蝕等問題造成的管道洩漏、破裂等事故，為工業安全提供堅實保障。

To address issues of corrosion resistance and insufficient pressure-bearing capacity in pipes during mining operations, we have successfully achieved mass production of these two innovations for the first time. This breakthrough fills the gap in the market for high-performance wear-resistant mining pipes and high-pressure coal mining pipes, providing safer and more reliable pipe system solutions for related industries. By enhancing the safety performance of pipes at the source, these innovations reduce accidents caused by issues such as material corrosion, including leaks and ruptures, thereby providing a solid foundation for industrial safety.

The Third Plenary Session of the 20th CPC Central Committee proposed "improving the institutional mechanisms for developing new quality productive forces tailored to local conditions". As a leading enterprise in the plastic piping industry, China Lesso has always placed technological innovation at the core of its strategy. Upholding the core philosophy of "innovation-driven development", we continuously enhance our technological R&D capabilities. Through ongoing R&D and innovation in key areas such as coal mining, home improvement engineering, municipal engineering, and nuclear power safety, we persist in empowering high-quality industrial development with new quality productive forces.

In 2024, China Lesso continued to intensify its efforts in industrial pipe R&D and technological innovation. We achieved numerous significant breakthroughs such as the "R&D and Industrialization of Key Technologies for Mining Steel Cord Reinforced Polyethylene Wear-Resistant Composite Pipes". By overcoming technological barriers in multiple industry domains, we launched a series of innovative products, including polyethylene (PE) pipes and fittings for nuclear power plants. We also received various honors and awards such as the "China's Top 100 Innovative Enterprises in 2024", the "Science and Technology Progress Award of Guangdong Light Industry Council", and the "Guangdong Provincial Industrial Design Center".



礦用鋼簾線增強聚乙烯耐磨複合管
Mining Steel Cord Reinforced Polyethylene Wear-Resistant Composite Pipe



煤礦用連續玻纖帶纏繞增強聚乙烯複合管
Continuous Glass Fiber Tape-Reinforced Polyethylene Composite Pipe for Coal Mining

研發多層 PP-R 管道及高透明電工套管，為家居水電安全提供保障 Multi-Layer PP-R Pipes and High-Transparency Electrical Conduits to Safeguard Household Water and Electrical Safety



中國聯塑研發的「長效疏水抗菌功能多層 PP-R 管道的研發及產業化」和「高透明阻燃系列電工套管製備關鍵技術及產業化」兩項成果經專家委員會鑒定，分別達到國際領先和國際先進水平。

China Lesso's two innovative achievements, "R&D and Industrialization of Long-lasting Hydrophobic Antibacterial Multi-layer PP-R Pipes" and "Key Technologies and Industrialization of High-Transparency Flame-Retardant Electrical Conduits", have been recognized by expert committees as reaching internationally leading and advanced levels, respectively.

多層結構 PP-R 管道能夠有效減少管道內壁水垢及雜質的附著，不易滋生細菌，進一步保障家庭給水安全。高透明阻燃系列電工套管在阻燃抑煙效果優異的同時，能夠實現家裝電路隱蔽工程施工透明化，幫助快速排查線路問題，有效提高家庭用電安全。

The multi-layer PP-R pipes effectively reduce the adhesion of scale and impurities on the inner walls of the pipes, making it difficult for bacteria to breed and further ensuring the safety of household water supply. Meanwhile, the high-transparency flame-retardant electrical conduits not only excel in flame retardancy and smoke suppression but also provide transparency in concealed electrical installations. This helps to rapidly identify circuit issues, thereby significantly improving the safety of household electrical use.



長效疏水抗菌功能多層 PP-R 管道
Long-Lasting Hydrophobic Antibacterial Multi-layer PP-R Pipe



高透明阻燃系列電工套管
High-Transparency Flame-Retardant Electrical Conduit

高抗紫外線 PVC-U 排水管，解決材料加速老化問題 Developing High UV-Resistant PVC-U Drainage Pipes to Address Material Aging



為降低強紫外輻射對環境的影響，中國聯塑通過增塑劑對抗紫外 PVC 改性，形成複合材料製備，並採用熔壓穩壓控制、內層反向螺旋平衡流動等技術，推出高抗紫外 PVC-U 排水管。該產品經專家委員會鑒定，已達到中國領先水平。

China Lesso has developed the high UV-resistant PVC-U drainage pipe by modifying PVC with UV-resistant plasticizers to create composite materials. Designed to mitigate the impact of strong ultraviolet (UV) radiation on the environment, this product is produced using techniques such as melt pressure stabilization control and inner-layer reverse spiral flow balancing. It has been recognized by expert committees as reaching leading standards in China.

高抗紫外 PVC-U 排水管兼具耐腐蝕性、抗紫外線能力和長壽命等特性，可有效保障水質安全，並且憑藉造價低、安裝方便等顯著優點，實現了管道鋪設的高效和經濟性。該產品已在市政工程、建築工程、水處理廠、高效節水灌溉工程等領域廣泛應用。

The high-UV-resistant PVC-U drainage pipe boasts several advantageous properties, including corrosion resistance, UV resistance, and a long service life, effectively ensuring water quality and safety. With significant advantages such as low cost and easy installation, these pipes enable efficient and economical deployments. The product has been widely applied in areas such as municipal engineering, construction projects, water treatment plants, and high-efficiency water-saving irrigation systems.



高抗紫外 PVC-U 排水管
High-UV-resistant PVC-U Drainage Pipe

核電廠用聚乙烯管材管件，為核電安全保駕護航 Developing Polyethylene Pipes and Fittings for Nuclear Power Plants to Ensure Nuclear Power Safety



傳統管道在耐用度及穩定性上的局限，威脅著核電設施的恆穩運行。中國聯塑洞悉行業痛點，專項突破，推出聯塑核電廠用聚乙烯（PE）管材及管件，使用符合 PE4710 核電級材料，提升管材管件的耐用度及穩定性，同時採用國際一流的生產設備，輔以進口 INOEX 米重計量系統、超聲波測厚系統，以及先進的超聲波無損檢測及自動化焊接技術，研發出具有穩定優異的抗震性能、耐海水腐蝕性、耐泥沙沖蝕的產品，守護核電安全，在核電應用領域及推廣價值方面具有重要意義。

Traditional pipes have limitations in terms of durability and stability, posing risks to the consistent operation of nuclear facilities. In response to this pain point of the industry, China Lesso has spearheaded a breakthrough by introducing polyethylene (PE) pipes and fittings specifically designed for nuclear power plants. These products utilize PE4710 nuclear-grade materials, significantly enhancing their durability and stability. The manufacturing process involves a range of world-class production equipment, including the imported INOEX mass measurement system, ultrasonic thickness measurement system, and advanced ultrasonic non-destructive testing and automated welding technologies. This comprehensive approach results in products that exhibit exceptional seismic resistance, corrosion resistance to seawater, and resilience against silt erosion. These products will play a positive role in the application and promotion of nuclear energy solutions.



聯塑核電廠用聚乙烯管道
PV Pipes for Nuclear Power Plants

HDPE 克拉管助力中國首個生態核電建設示範基地建設 HDPE Clamp Pipes Contribute to the Construction of China's First Ecological Nuclear Power Demonstration Base



聯塑 HDPE 克拉管 DN2000 憑藉環剛度高、柔韌性好、耐腐蝕、耐磨損等優點，成功入選中國首個生態核電建設示範基地——太平嶺核電站項目建設，為核電站運行安全保駕護航，也象徵中國聯塑的品牌實力、產品品質和技術實力獲得了高度肯定。

HDPE clamp pipes (DN2000) manufactured by China Lesso have been selected for the construction of China's first ecological nuclear power demonstration base—the Taiping Mountain Nuclear Power Plant project. These pipes are recognized for their high ring stiffness, excellent flexibility, corrosion resistance, and wear resistance, making them an ideal choice for ensuring the safe operation of nuclear power facilities. This also symbolizes the high recognition of our brand strength, product quality, and technological prowess.



聯塑克拉管 DN2000
Clamp Pipe DN 2000

風勁帆滿圖新志，砥礪前行正當時。中國聯塑以技術創新為引擎，驅動工業安全邁向新高度。在時代的浪潮下，我們將持續深耕技術研發，以卓越的創新成果築牢工業安全防線，為行業的穩健前行保駕護航，為構建安全、高效、可持續的工業生態不懈努力。

In an era where technological advancements are paramount, China Lesso harnesses innovation as the driving force to elevate industrial safety to unprecedented levels. Riding the waves of the times, we will continuously delve deeply into technological R&D and strengthen industrial safety with outstanding innovative achievements. We are dedicated to safeguarding the steady progress of the industry and tirelessly working toward building a safe, efficient, and sustainable industrial ecosystem.



01
行穩致遠
賦能持續發展

Striving to Empower the Sustainable Development

中國聯塑在戰略佈局中深度融入可持續發展理念，持續優化治理框架和可持續發展管理機制，積極促進與各利益相關方的深度互動與合作，同時確保風險管控機制的高效穩健運行，為本集團的持續健康發展提供堅實保障。

At China Lesso, the concept of sustainability is an integral part of its strategic layout. We continuously optimize our governance structure and sustainability management mechanisms, and actively promote in-depth interaction and cooperation with all stakeholders. We also ensure the efficient and stable operation of risk control mechanisms, thereby providing a solid foundation for the Group's sustainable and sound development.

回應 SDGs
Response to SDGs



重要性議題 Material Issues	核心策略 Core Strategies
可持續發展戰略與管理 Sustainability strategy and management	- 優化可持續發展管治架構，實現各層級對於可持續發展事務的有效管理，包括定期匯報、審視機制 Optimizing the sustainability governance structure to ensure effective management of sustainability matters at all levels, including regular reporting and review mechanisms - 加強與內外部利益相關方的雙向溝通協作，定期釐定各議題重要性 Strengthening two-way communication and collaboration with internal and external stakeholders, and regularly determining the materiality of various issues
企業管治 Corporate governance	- 關注董事會成員的獨立性、專業性和多元化程度，強化董事會治理能力 Prioritizing the independence, professionalism, and diversity in the composition of the Board to enhance its governance capabilities - 完善企業治理架構，健全企業制度體系，規範股東權益保護和投資者關係管理 Improving the corporate governance structure, refining the corporate system, and standardizing protection of shareholders' rights and interests and management of investor relations
多元經營與經濟效益 Diversified operations and economic benefits	- 創新多元化經營，發展管道、建材家居和環保等產業，追求業務規模的增長，注重盈利能力的提升，增強各利益相關方對本集團發展的信心 Innovating diversified operations by developing industries such as pipes, building materials and home improvement, and environmental protection, pursuing business growth and profitability enhancement, and boosting stakeholders' confidence in the Group's development - 保障經營信息披露的高質量、時效性，讓利益相關方全面、客觀了解本集團的實際運營情況 Ensuring high-quality and timely disclosure of operational information, and helping stakeholders gain a comprehensive and objective understanding of the Group's actual operations
合規與商業道德 Compliance and business ethics	- 完善合規管理體系，明確合規要求、操作流程、責任分工及違規處罰等內容，定期展開合規培訓，提高合規意識和操作技能 Improving the compliance management system by clarifying compliance requirements, operational procedures, a clear division of responsibilities, and penalties for violations, and regularly holding compliance training sessions to enhance compliance awareness and operational skills - 強化商業道德建設，完善反舞弊管理架構及舉報受理流程，保護舉報人的人身安全與隱私信息，保障潛在舞弊案件得到妥善受理，舉報人基本權益不受侵害 Strengthening business ethics by improving the anti-fraud management structure and reporting procedures, protecting whistleblowers' personal safety and privacy, and ensuring that potential fraud cases are properly handled and whistleblowers' basic rights and interests will not be infringed on - 定期展開廉潔宣傳培訓，提升內外部反腐敗意識 Regularly conducting integrity promotion and training to raise awareness of anti-corruption both internally and externally
風險管控 Risk control	- 完善風險管理架構，建立長效的風險管理機制，強化風險識別、監控和防範能力 Perfecting the risk management structure, and building a long-term effective risk management mechanism to reinforce the ability to identify, monitor and prevent risks - 定期展開涉及本集團人員及經營管理行為的內部及第三方審計，及時整改流程管理不當事項 Conducting regular audits by internal staff members or third parties for the employees and management behaviors of the Group, and rectifying the improper management of procedures in a timely manner

關鍵績效 KPIs

- 2024 年，員工反腐敗培訓覆蓋比率 **22.50%**，共計 **1,403** 人，其中包括董事會成員及高級管理層人員，本集團未發生貪污訴訟案件
In 2024, the anti-corruption training covered **22.50%** of employees (**1,403** people in total), including the Board and senior management, the Group did not experience any corruption-related lawsuits



可持續發展治理

Sustainability Management

中國聯塑持續完善可持續發展管理體系，以企業日常經營管理為基礎，實施適合自身的可持續發展治理策略，確保本集團可持續發展管理水平得以持續提升。

China Lesso is committed to refining its sustainability management system. Building on its daily operations and actual conditions, the Group implements sustainability governance strategies to continuously enhance its sustainability management capabilities.

可持續發展管治體系

Sustainability Management System

中國聯塑建立「決策層－管理層－執行層」三層級 ESG 管治架構，遵循《ESG 重大事宜審批制度》和《優秀 ESG 工作者評選制度》等 ESG 管理制度，有效推動可持續發展工作的深入實施。

China Lesso has established a three-tiered ESG governance structure comprised of "Decision making－Management－Implementation", guided by ESG management policies such as the *Approval System for Material ESG Issues* and the *Selection System for Outstanding ESG Workers*, the Group effectively promotes the in-depth implementation of sustainability efforts.

ESG 管治架構

ESG Governance Structure

董事會將 ESG 監督決策職能授權給可持續發展委員會，下設可持續發展辦公室，統籌管理 ESG 相關事宜，定期向可持續發展委員會匯報。同時，成立 ESG 推進小組負責日常可持續發展相關事宜推進落地。此外，我們面向董事會專門展開多場培訓活動，覆蓋可持續發展政策趨勢、氣候變化風險應對策略等主題，確保董事會具備必要的 ESG 方面的知識和資源。

The Board has delegated ESG oversight and decision-making authority to the Sustainable Development Committee. The Sustainability Office is set up to manage ESG-related matters and regularly report to the Sustainable Development Committee. Meanwhile, the ESG Promotion Group has been formed to advance the implementation of day-to-day sustainability efforts. To ensure that the Board is equipped with the necessary knowledge and resources related to ESG, we conduct multiple training sessions covering topics such as sustainability policy trends and climate change risk response strategies.

ESG 管治架構
ESG Governance Structure

機構 Body	角色 Role	職責 Responsibility
可持續發展委員會 Sustainable Development Committee	決策機構 Decision-making Body	● 領導、推進可持續發展工作； Leading and advancing sustainability efforts; ● 審批可持續發展戰略、規劃和年度工作計劃、目標； Approving sustainability strategies, plans, and annual work plans and goals; ● 對 ESG 總體進行監控，審批本集團重大實質性議題； Monitoring overall ESG performance and approving the Group's material issues; ● 處理可持續發展工作中的重大問題。 Addressing major challenges in sustainability efforts.
可持續發展辦公室 Sustainability Office	管理機構 Management Body	● 可持續發展管理體系的建立、實施和持續優化； Establishing, implementing, and continuously optimizing the sustainability management system; ● 對包括氣候相關風險的 ESG 重要風險進行識別和評價，並根據董事會的決策制定氣候行動目標和計劃，討論目標的管理進度； Identifying and assessing key ESG risks, including climate-related risks, and developing goals and plans for climate actions based on the Board decisions, while monitoring progress; ● 向可持續發展委員會匯報本集團面臨的 ESG 風險和挑戰，展開風險識別、評價與控制，匯報 ESG 工作展開進度； Reporting ESG risks and challenges faced by the Group to the Sustainable Development Committee, conducting risk identification, assessment, and control, and updating on ESG progress; ● 組織展開實質性議題調研，並向可持續發展委員會提供分析，解釋得出實質性議題的過程及目前實質性議題清單； Carrying out materiality assessments, providing analysis for the Sustainable Development Committee, and explaining the process of identifying material issues and the current materiality list; ● 落實可持續發展委員會的各項決議，編制年度可持續發展報告，協調本集團可持續發展相關工作； Implementing resolutions from the Sustainable Development Committee, preparing the annual sustainable development report, and coordinating the Group's sustainability-related activities; ● 識別各利益相關方，組織協調利益相關方合理訴求，提升本集團可持續發展競爭力。 Identifying various stakeholders, addressing their reasonable demands, and enhancing the Group's competitiveness in sustainable development.
ESG 推進小組 ESG Promotion Group	執行主體 Executive Body	● 收集和整理所在部門 ESG 信息、數據； Collecting and sorting ESG-related information and data from departments involves; ● 推進本集團下達的各項可持續發展工作任務和日常聯絡溝通。 Advancing sustainability tasks assigned by the Group and facilitating daily communication and coordination.

社會責任體系認證
Social Responsibility System Certification

為推進社會責任管理體系與公司業務有機融合，我們開展社會責任管理體系培訓，面向財務、客戶服務、採購、生產、倉儲等相關部門負責人，加強對社會責任原則、核心主題及基本實踐的理解。此外，我們持續推進 GB/T 39604-2020 社會責任體系認證工作，2024 年，南京聯塑科技實業有限公司獲得社會責任管理體系認證。

In order to promote the integration of social responsibility management system with our business, we launched training on our social responsibility management system for those in charge of finance, customer service, purchasing, production, warehousing and other relevant departments to enhance their understanding of the principles, core themes and basic practices of social responsibility. In addition, we continued to promote the GB/T 39604-2020 social responsibility system certification, and in 2024, Nanjing Lesso Technology Industry Co., Ltd. obtained the certificate of social responsibility management system.



社會責任管理體系認證證書
Certificate of Social Responsibility Management System Certification

利益相關方溝通
Communication with Stakeholders

我們始終堅守開放溝通原則，一方面積極搭建包括調查問卷、書面溝通在內的多元交流渠道，與內外部利益相關方保持緊密且富有成效的雙向互動。另一方面，我們通過定期、系統地收集和分析利益相關方的反饋，靈活調整 ESG 具體行動方案，確保精準回應利益相關方的期望。

We consistently uphold the principle of open communication. To this end, we actively build diverse communication channels, including questionnaires and written communications, to maintain close, productive two-way interactions with both internal and external stakeholders. Meanwhile, we regularly and systematically collect and analyze feedback from stakeholders and flexibly adjust our ESG action plans to ensure that we accurately respond to stakeholder concerns.

利益相關方溝通渠道
Channels of Communication with Stakeholders

利益相關方 Stakeholders	期望與訴求 Expectations & Demands	回應措施 Responses & Measures
 政府與監管部門 Government and regulatory authorities	● 合規與商業道德 Compliance and business ethics ● 循環經濟 Circular economy ● 當地經濟發展 Local economic development ● 可持續發展戰略與管理 Sustainable development strategy and management	● 日常匯報溝通 Daily reporting and communication ● 依法納稅 Tax compliance ● 論壇與交流活動 Forum and exchange activities ● 積極響應國家政策 Active response to national policies

利益相關方 Stakeholders	期望與訴求 Expectations & Demands	回應措施 Responses & Measures
 股東與投資者 Shareholders and investors	● 多元經營與經濟效益 Diversified operations and economic benefits ● 企業管治 Corporate governance ● 風險管控 Risk control	● 建立完善科學的決策及監督機制 Developing sound and scientific decision-making and supervision mechanisms ● 定期披露經營信息 Regular disclosure of operation information ● 組織參與針對不同類型股東的活動 Organizing special activities for various shareholders ● 加強風險管控 Strengthening risk control
 顧客 Customers	● 產品質量 Product quality ● 優質服務 Excellent services ● 隱私保護與數據安全 Privacy protection and data security ● 負責任營銷 Responsible marketing	● 產品質量控制 Controlling product quality ● 提供優質服務 Delivering excellent services ● 保護客戶私隱 Protecting customer privacy ● 滿意度調查 Conducting satisfaction surveys
 員工 Employees	● 員工培訓與發展 Employee training and development ● 員工薪酬與福利 Employee remuneration and benefits ● 職業健康與安全 Occupational health and safety ● 員工關愛與幫扶 Employee care and support ● 多元化、平等與合規僱傭 Employment diversity, equality and compliance	● 積極展開各類培訓 Actively organizing various trainings ● 完善人才晉升與薪酬機制 Perfecting the talent promotion and remuneration mechanisms ● 加強職業健康與安全管理 Enhancing occupational health and safety management ● 推行多樣化的員工福利 Offering diverse employee benefits
 合作夥伴 Partners	● 經銷商管理 Distributor management ● 供應商管理 Supplier management ● 可持續採購 Sustainable procurement ● 合規與商業道德 Compliance and business ethics	● 依法履行合同 Compliance in fulfilling contracts ● 公開招標 Open bidding ● 杜絕商業賄賂 Eliminating commercial bribery ● 參加行業交流活動 Participating in industry exchange activities
 社區與公眾 Communities and the public	● 當地經濟發展 Local economic development ● 公益慈善活動 Public service and philanthropy ● 氣候變化應對 Response to climate change ● 排放物及廢棄物管理 Emission and waste management ● 能源資源使用效益 Energy resource utilization efficiency ● 生物多樣性 Biodiversity	● 展開各類公益活動 Conducting various social service activities ● 加強產業幫扶工作 Intensifying industrial support ● 支持鄉村振興戰略 Supporting rural revitalization ● 鼓勵員工參加志願服務 Encouraging employees to participate in voluntary services ● 發展綠色產業 Developing green industries ● 踐行綠色運營 Putting green operation into practice ● 加強環境治理 Consolidating environmental governance ● 加強環境信息披露 Strengthening environmental information disclosure

重要性議題分析

Analysis of Material Issues

為持續、深入地洞悉利益相關方對我們的訴求與期望，我們已建立涉及政府、股東、員工、顧客等內外部利益相關方的定期調研機制。本年度，我們對重要性議題列表進行更新，沿用「對企業的財務影響」和「對利益相關方的重要性」兩個維度展開分析。

In order to continuously and deeply understand the demands and expectations of various stakeholders, we have established a regular research mechanism involving both internal and external stakeholders, including governments, shareholders, employees, and customers. In 2024, we updated the material issue list and continued to use the two dimensions of "financial impact on the enterprise" and "materiality to stakeholders" for analysis.

重要性議題識別與評估工作流程

Identification and Assessment Procedures of Material Issues

識別及建立議題庫 Identifying issues and building an issue database

綜合考慮監管合規要求、各利益相關方關注焦點及行業發展趨勢，並結合中國聯塑可持續發展工作規劃，多維度更新議題庫，其中包含環境、社會及管治 3 大範疇共計 27 項議題。

Considering compliance with regulatory requirements, the concerns of various stakeholders, industry development trends, and the sustainability work plans of China Lesso, the database is updated from multiple dimensions. This includes 27 issues spanning three categories: environmental, social, and governance.

利益相關方調研 Survey of stakeholders

2024 年，我們面向董事會成員、高層管理者、員工、客戶、政府及監管機構、社區及公眾、經銷商、供應商、環保組織、投資者及股東等內外部利益相關方發放並回收 2,234 份有效調研問卷。

In 2024, we collected 2,234 valid survey questionnaires issued to internal and external stakeholders, including directors, senior management, employees, customers, government and regulatory agencies, communities and the public, distributors, suppliers, environmental NGOs, investors, and shareholders.

實質性評估 Materiality assessment

我們根據問卷調研數據及行業趨勢，評估各議題雙重實質性並對議題進行排序，形成包含 10 項高度重要議題的 2024 年實質性議題矩陣，並由本集團管理層和外部專家審視議題評估結果。

Based on the survey data and industry trends, we evaluated the double materiality of each issue and prioritized them, resulting in a materiality matrix for 2024 that includes 10 highly material issues. The evaluation results were reviewed by the management of the Group and external experts.

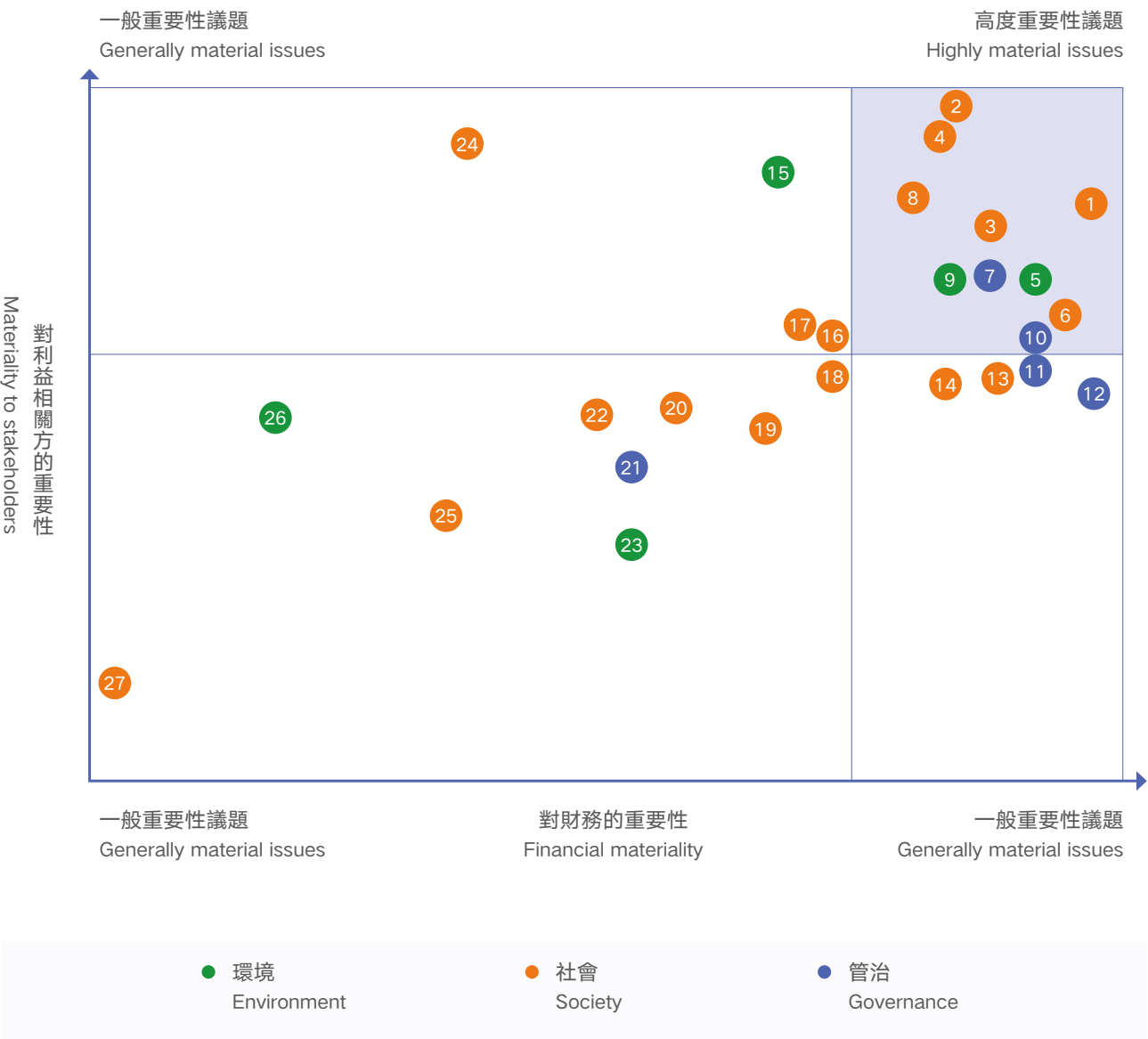
議題回應及披露 Addressing and disclosing issues

針對實質性議題，我們積極制定及實施管理行動計劃，向董事會呈現並獲得確認，在報告中進行重點回應與披露。

For material issues, we actively developed and implemented management action plans, presented them to the Board for confirmation, and highlight our responses and disclosures in the report.

2024 年可持續發展重要性議題矩陣¹

2024 Material Issue Matrix for Sustainable Development¹



¹ 2024 年重要性議題分佈較往年整體向右上角偏移，高度重要性議題的界定範圍已進行優化調整。

¹ In 2024, the distribution of material issues has shifted overall toward the upper right corner compared to previous years, and the scope of highly material issues has been optimized and adjusted.

2024 年重要性議題列表
List of Material Issues in 2024

議題重要性 Materiality of Issue	議題排序 Ranking	議題範疇 Category	重要性議題 Material Issue
高度重要議題 Highly Material Issues	1	社會 Social	員工薪酬與福利 Employee remuneration and benefits
	2	社會 Social	職業健康與安全 Occupational health and safety
	3	社會 Social	優質服務 Excellent services
	4	社會 Social	產品質量 Product quality
	5	環境 Environmental	能源資源使用效益 Energy resource utilization efficiency
	6	社會 Social	產品創新 Product innovation
	7	管治 Governance	風險管控 Risk control
	8	社會 Social	隱私保護與數據安全 Privacy protection and data security
	9	環境 Environmental	循環經濟 Circular economy
	10	管治 Governance	可持續發展戰略與管理 Sustainable development strategy and management
一般重要議題 Generally Material Issues	11	管治 Governance	企業管治 Corporate governance
	12	管治 Governance	合規與商業道德 Compliance and business ethics
	13	社會 Social	供應商管理 Supplier management
	14	社會 Social	負責任營銷 Responsible marketing
	15	環境 Environmental	排放物及廢棄物管理 Emission and waste management
	16	社會 Social	知識產權 Intellectual property
	17	社會 Social	員工培訓與發展 Employee training and development
	18	社會 Social	經銷商管理 Distributor management
	19	社會 Social	可持續採購 Sustainable procurement
	20	社會 Social	員工關愛與幫扶 Employee care and support
	21	管治 Governance	多元經營與經濟效益 Diversified operations and economic benefits
	22	社會 Social	多元化、平等與合規僱傭 Employment diversity, equality and compliance
	23	環境 Environmental	氣候變化應對 Response to climate change
	24	社會 Social	化學品管理 Chemical management
	25	社會 Social	當地經濟發展 Local economic development
	26	環境 Environmental	生物多樣性 Biodiversity
	27	社會 Social	公益慈善活動 Public service and philanthropy

完善公司治理

Improving Corporate Governance

中國聯塑嚴格遵守《中華人民共和國公司法》等法律法規，建立職責齊備、行之有效的本集團治理結構，制定滿足本集團發展要求的規章制度，築牢風險管理及內部控制體系，恪守商業道德，保障本集團平穩健康運行。

In strict compliance with laws and regulations such as the *Company Law of the People's Republic of China*, China Lesso has established a sound and effective governance structure for the Group. We have formulated rules and regulations that meet the Group's development requirements, built a robust risk management and internal control system, and adhered to business ethics to ensure the Group's stable and healthy operation.

企業治理體系

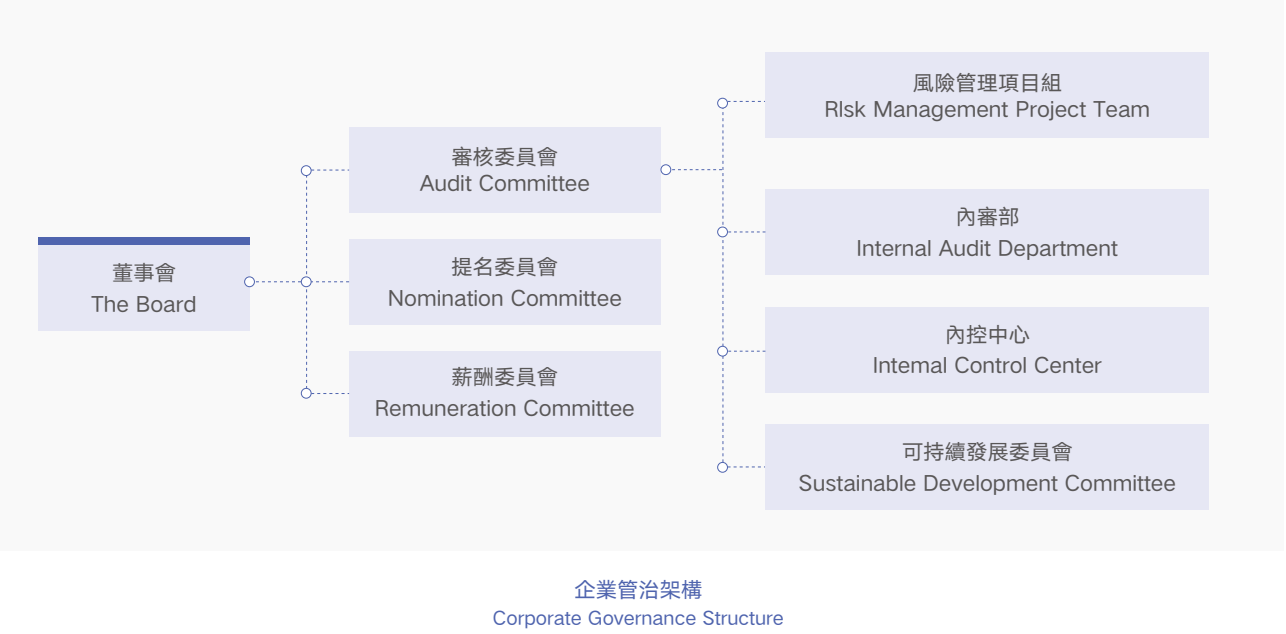
Corporate Governance System

企業管治架構

Corporate Governance Structure

董事會下設提名委員會、薪酬委員會及審核委員會，委員會主席均由獨立非執行董事擔任。董事會、董事委員會等詳細內容見《中國聯塑集團控股有限公司 2024 年度報告》。

The Board has set up three committees: the Nomination Committee, the Remuneration Committee, and the Audit Committee, each chaired by an independent non-executive director. For details about the Board, the Board committees, and other related matters, please refer to the *2024 Annual Report of China Lesso Group Holdings Limited*.



董事會多元化
Diversity of the Board

我們制定《董事會成員多元化政策》《董事提名政策》等董事會成員相關政策制度，明確董事選擇標準和程序時要充分考慮董事會多元化要求，包括但不限於性別、文化、種族、資歷、技能、經驗、獨立性等。更多企業管治相關信息詳見官網鏈接 <https://www.lesso.com/investor-relations/corporate-regulation/>。

We have established policies related to Board members, including the *Board Member Diversity Policy* and the *Director Nomination Policy*, which clearly outline the criteria and procedures for selecting directors. These policies fully take into account the requirements for Board diversity, including but not limited to gender, culture, ethnicity, qualifications, skills, experience, and independence. For more information on corporate governance, please visit our official website at <https://www.lesso.com/investor-relations/corporate-regulation/>.

我們結合業務模式和發展規劃，在考察董事會成員候選人時，綜合考慮其資歷、技巧、經驗、獨立性及性別多元化等方面可為董事會帶來的貢獻。截至 2024 年底，我們現任董事會中包含 3 位女性董事，佔比 21.4%；5 位獨立非執行董事，佔比 35.7%。現任董事會成員具備建材產業、法律財務、會計相關領域的行業經驗，並具備技術研究等專業能力。

In line with our business model and development plan, we consider the potential contributions to the Board from factors such as qualifications, skills, experience, independence, and gender diversity of candidates. As of the end of 2024, the Board comprised three female directors, representing 21.4% of the Board, and five independent non-executive directors, accounting for 35.7%. The current Board members possess industry experience in the building materials sector, along with expertise in legal and financial fields, accounting, and technical research.

董事會成員結構

Structure of Board Members

姓名 Name	性別 Gender	專業知識與技能 Expertise & Skills		主要經歷 Main Experience			年齡 Age		
		建材產業 Building Materials Industry	法律、財務或會計 Legal, Financial, or Accounting	建材產業 Building Materials Industry	法律、財務或會計 Legal, Financial, or Accounting	技術研究 Technical Research	50 歲以下 50 or below	51 至 60 歲 51 to 60	61 至 70 歲 61 to 70
執行董事 Executive Directors									
黃聯禧 (主席) Wong Luen Hei (Chairman)	男 Male	✓		✓					✓
左滿倫 (行政總裁) Zuo Manlun (Chief Executive)	男 Male	✓		✓				✓	
左笑萍 Zuo Xiaoping	女 Female	✓		✓				✓	
賴志強 Lai Zhiqiang	男 Male	✓		✓				✓	
孔兆聰 Kong Zhaocong	男 Male	✓		✓				✓	
陳國南 Chen Guonan	男 Male	✓		✓		✓		✓	
林少全 Lin Shaoquan	男 Male	✓				✓	✓		

姓名 Name	性別 Gender	專業知識與技能 Expertise & Skills		主要經歷 Main Experience			年齡 Age		
		建材產業 Building Materials Industry	法律、財務或會計 Legal, Financial, or Accounting	建材產業 Building Materials Industry	法律、財務或會計 Legal, Financial, or Accounting	技術研究 Technical Research	50 歲以下 50 or below	51 至 60 歲 51 to 60	61 至 70 歲 61 to 70
羅建峰 Luo Jianfeng	男 Male		√		√			√	
宋科明 Song Keming	男 Male	√		√			√		
獨立非執行董事 ² Independent Non-executive Directors ²									
陶志剛 Tao Zhigang	男 Male		√ (經濟) (Economics)		√			√	
鄭迪舜 Cheng Dickson	男 Male		√		√			√	
呂建東 Lu Jiandong	女 Female		√		√			√	
洪瑞江 Hong Ruijiang	男 Male	√				√		√	
李穎嫻 Lee Vanessa	女 Female		√		√		√		

投資者溝通
Communication with Investors

我們嚴格遵守聯交所上市規則及證券市場相關規定，每年定期檢討《股東通訊政策》，健全投資者權益保護制度和體系，通過業績發佈會、投資者接待會、路演會議、定期郵件往來、日常電話接待和投資者調研等方式，與投資者溝通和互動，真實、準確、完整地向股東及投資者及時披露信息情況，切實維護投資者的合法權益。

We strictly adhere to the Rules Governing the Listing of Securities on the Stock Exchange and regulations related to the securities market. Each year, we regularly review the *Shareholder Communication Policy* to strengthen the system and framework for protecting the rights and interests of investors. We communicate and interact with investors through various channels, including results press conferences, investor reception meetings, roadshows, regular email correspondence, daily telephone inquiries, and investor research activities. By disclosing information to shareholders and investors in a timely, truthful, accurate, and complete manner, we effectively safeguard their legitimate rights and interests.

關於可持續發展事項，我們亦通過路演、策略會、定期報告等方式，圍繞廢氣廢水處理、能源投入、海外勞工管理、綠色產品及供應鏈管理等關鍵領域，積極回應投資者對於可持續相關內容的訴求。

Regarding sustainability matters, we also actively address investors' concerns about sustainability-related topics through roadshows, strategy meetings, periodic reports and other methods. These communication events focus on key areas such as waste gas and wastewater treatment, energy consumption, overseas labor management, green products, and supply chain management.

² 其中陶志剛先生、鄭迪舜先生、呂建東女士、李穎嫻女士作為審核委員會的主席及成員，具備經濟、法律財務領域的豐富行業知識。
² Mr. Tao Zhigang, Mr. Cheng Dickson, Ms. Lu Jiandong, and Ms. Lee Vanessa, serving as the chair and members of the Audit Committee, bring extensive industry knowledge in economics, legal and financial fields.

商業道德

Business Ethics

我們嚴格遵守《中華人民共和國刑法》《中華人民共和國刑事訴訟程序法》《中華人民共和國治安管理處罰法》以及《中華人民共和國香港特別行政區基本法》等多項法律法規，要求全體員工遵守本集團行為準則、道德規範及國家、行業所涉及及法律法規，合作夥伴必須遵守本集團反舞弊相關準則及《供應商行為守則》，並要求合作夥伴簽訂《廉潔協議》。2024年，本集團未出現與貪污、賄賂、欺詐等有關違法違規事件，未發生貪污訴訟案件。

We strictly comply with numerous laws and regulations, including the *Criminal Law of the People's Republic of China*, the *Criminal Procedure Law of the People's Republic of China*, the *Law of the People's Republic of China on Penalties for Administration of Public Security*, and the *Basic Law of the Hong Kong Special Administrative Region of the People's Republic of China*. We require all employees to adhere to the Group's code of conduct, ethical standards, and relevant national and industry laws and regulations. Our partners are required to comply with the Group's anti-fraud guidelines and the *Supplier Code of Conduct*, and to sign an *Integrity Agreement*. In 2024, the Group experienced no illegal or non-compliant incidents related to corruption, bribery, or fraud, and no corruption-related lawsuits occurred.

反舞弊管理架構

Anti-fraud Management Structure

我們建立了以董事會為最高領導機構的反舞弊管理架構，持續優化各層級職責，確保本集團反舞弊管理工作得以系統化、規範化進行。

We have established an anti-corruption management structure with the Board as the highest governing body. Besides, we continuously optimize responsibilities at all levels to ensure that the Group's anti-fraud management is conducted in a systematic and standardized manner.

反舞弊管理架構
Anti-fraud Management Structure

機構 Body	職責 Responsibilities
董事會 The Board	負責督促管理層建立反舞弊文化環境、建立健全包括預防舞弊在內的內部控制體系，監督審核委員會、反舞弊管理小組的反舞弊工作，聽取相關匯報 Responsible for urging management to foster an anti-fraud culture, establishing and improving an internal control system that includes fraud prevention, overseeing the anti-fraud efforts of the Audit Committee and the Anti-fraud Management Team, and reviewing related reports
審核委員會 Audit Committee	負責對反舞弊工作進行持續監督，審閱舞弊舉報、調查、報告的記錄，指導、監督重大舞弊案件的調查及處理，以確保公正處理有關事宜 Responsible for ongoing supervision of anti-fraud efforts, reviewing records of fraud reports, investigations, and outcomes, as well as guiding and overseeing the investigation and handling of major fraud cases to ensure fair and impartial resolution of related matters
反舞弊管理小組 Anti-fraud Management Team	負責建立反舞弊的企業文化環境，建立、健全預防舞弊在內的內部控制體系，制訂本集團反舞弊管理制度，受理舞弊案件，審核舞弊舉報處理意見等 Responsible for building an anti-fraud corporate culture, establishing and enhancing an internal control system that includes fraud prevention, formulating the Group-level anti-fraud management policies, handling fraud cases, and reviewing opinions on the handling of fraud reports
反舞弊調查組織 Anti-Fraud Investigation Unit	負責舞弊事件投訴、舉報信息的接收，資料登記和歸檔，為反舞弊管理小組提供所接受案件的舞弊舉報調查報告與處理意見等 Responsible for the reception, registration and filing of complaints and reports related to fraud incidents, and providing the Anti-fraud Management Team with investigation reports and handling opinions on the cases received
法律部 Legal Department	根據舞弊舉報案件調查的需要，參與舞弊調查工作，在不同的階段給予反舞弊管理小組專業的法律意見 Participating in fraud investigations based on the requirements of fraud report cases, and offering professional legal advice to the Anti-fraud Management Team at various stages

反貪腐管理體系

Anti-corruption Management System

為保障反腐工作標準化、規範化、制度化，我們依據相關法律法規、國際標準公開發佈《反舞弊管理制度及舉報政策》和《企業行為準則和道德規範》等規章制度。同時，我們根據業務實踐至少每三年審查相關制度文件，不斷完善制度體系建設。2024年，本集團展開覆蓋全部運營範圍（包括海外子公司）的內部反貪腐審計工作。

To ensure the standardization, normalization, and institutionalization of anti-corruption efforts, we have publicly released regulations such as the *Anti-corruption Management System and Reporting Policy* and the *Corporate Code of Conduct and Ethical Standards* in accordance with relevant laws, regulations, and international standards. Furthermore, we audit these policy documents at least every three years based on business practices to continuously improve the relevant system. In 2024, the Group conducted internal anti-corruption audits covering all operational areas, including overseas subsidiaries.

舉報管理流程

Whistleblowing Management Process

我們採取專用信箱、專用電子郵件等常態化監察投訴舉報渠道接受實名及匿名舉報，對接獲的違規事件投訴保持「零容忍」態度——依據國家有關法律、法規及本集團的有關規定，對相關責任人進行處理，追究其責任，包括但不限於談話誠勉、通報批評、調離崗位、降職、降薪、辭退、開除、經濟責任賠償等，觸及國家法律的情形則依法移送司法機關。

We have provided a variety of dedicated whistleblowing channels, including dedicated mailboxes and email addresses, to continuously monitor and receive both real-name and anonymous reports. We also maintain a "zero-tolerance" attitude toward reported violations. In accordance with relevant national laws, regulations, and the Group's internal rules, we address and hold accountable those responsible. Disciplinary actions include, but are not limited to, verbal warnings, official reprimands, job reassignments, demotions, salary reductions, termination of employment, dismissal, and financial compensation for damages. Cases that violate national laws will be transferred to judicial authorities for legal proceedings.



我們建立的《反舞弊管理制度及舉報政策》嚴格規範舉報信息受理、登記、調查、審計、決策、處置等各環節流程。我們遵循舉報人合法權益不受侵犯原則，對舉報人的有關情況及舉報內容嚴格保密，堅決保護舉報人的人身安全，任何部門和個人不得以任何藉口打擊報復舉報人。

We have formulated the *Anti-corruption Management System and Reporting Policy*, which strictly regulates the entire process of handling reports, including acceptance, registration, investigation, audit, decision-making, and resolution. We adhere to the principle that the legitimate rights and interests of whistleblowers must not be infringed upon. Information regarding whistleblowers and the details of their reports are kept strictly confidential. We are committed to safeguarding the personal safety of whistleblowers, and no department or individual may retaliate against or suppress whistleblowers under any pretext.

廉潔文化建設

Fostering Integrity Culture

我們每年面向董事會、管理層、員工及合作夥伴進行多場廉潔宣傳培訓，內容涵蓋違法後果、典型案例、舉報渠道等，確保相關方全面理解並自覺遵守我們所倡導的商業道德準則與企業治理原則，共同維護健康、透明、公平的商業環境。

Each year, we conduct multiple promotion and training sessions on ethical standards for the Board, management, employees, and business partners. These sessions cover topics such as legal consequences, typical case studies, and reporting channels, aiming to ensure that all stakeholders fully understand and voluntarily adhere to our business ethics guidelines and corporate governance principles. Through these efforts, we jointly foster a healthy, transparent, and fair business environment.

關鍵績效 KPIs



- 2024 年，員工反腐敗培訓覆蓋比率 **22.50%**，共計 **1,403** 人，其中包括董事會成員及高級管理層人員
- In 2024, the anti-corruption training covered **22.50%** of employees (**1,403** people in total), including Board and senior management

中國聯塑展開預防職務犯罪講座

China Lesso Holds a Lecture on Preventing Job-related Crimes

2024 年 12 月，我們展開以「築牢思想防綫，預防職務犯罪」為主題的刑事法律風險防控專題講座。該培訓覆蓋董事、高級管理層、供應商、經銷商等相關方，採用線上線下相結合的方式，對相關法律條文、概念、處罰標準、日常案例等展開解析，旨在增強相關方的法律意識和風險防控能力，提升企業整體的刑事法律風險防控能力，為企業的可持續發展奠定堅實的法治基礎。

In December 2024, we organized a thematic lecture titled "Strengthening Ideological Defense and Preventing Job-Related Crimes" to prevent and control criminal legal risks. The training covered directors, senior management, suppliers, distributors, and other stakeholders. It was conducted online and offline, providing in-depth analysis of relevant legal provisions, key concepts, penalty standards, and real-world cases. The aim was to enhance the legal awareness and risk prevention capabilities of stakeholders, improve the overall criminal law risk prevention capabilities of the Group, and lay a solid legal foundation for sustainable development.

風險管理

Risk Management

我們持續完善內部控制和風險管理體系框架，定期通過定性與定量相結合的方法，推進本集團風險識別、評估與應對工作，以適應不斷變化的外部環境及內部管理需求。

We continuously improve our internal control and risk management system. On a regular basis, we employ a combination of qualitative and quantitative methods to advance risk identification, assessment, and response within the Group to better adapt to the ever-changing external environment and internal management needs.

風險管理體系建設

Development of Risk Management Structure

我們根據《企業內部控制基本規範》，參考《企業風險管理框架》《公司章程》，制定了《合同管理辦法》《資產管理制度》和《資金管理制度》等一系列風險管理制度和政策，以制度的形式有效識別與監控風險。2024 年，我們更新《海外派遣人員管理及補貼制度》《印章管理辦法》和《庫存管理辦法》等制度，持續優化風險管理體系。

In compliance with the *Basic Standards for Corporate Internal Control* and with reference to frameworks such as the *Enterprise Risk Management Framework* and the *Articles of Association*, we have formulated a series of risk management policies, including the *Contract Management Measures*, the *Asset Management System*, and the *Fund Management System*, to effectively identify and monitor risks through institutional mechanisms. In 2024, we updated key policies such as the *Management and Subsidy System for Overseas Personnel*, the *Seal Management Measures*, and the *Inventory Management Measures* to continuously enhance our risk management system.

我們已建立風險管理組織體系，其中，董事會對全面風險管理工作的有效性負責，審核委員會作為本集團最高層級的風險管理機構，負責審計風險管理體系建設、制度、重大風險預防及重大危機應對決策。審核委員會下設風險管理項目小組、內控中心及內審部，三方各司其責。各職能部門作為風險執行機構，執行風險管理基本流程、建立健全職能部門的風險管理流程。

We have established a risk management organizational system. The Board is responsible for the effectiveness of comprehensive risk management, while the Audit Committee, as the Group's highest-level risk management body, oversees the development of the risk management system, policies, and decisions regarding major risk prevention and critical crisis response. Operating under the Audit Committee, the Risk Management Project Team, Internal Control Center, and Internal Audit Department fulfill their respective responsibilities. Functional departments, as risk execution bodies, implement basic risk management processes and establish robust risk management procedures within the scope of authority.



優化風險管理流程 Optimization of Risk Management Process

我們將風險管理與合規要求融入各項業務和管理流程中，嚴格根據《合同事務處理規範》《資產管理執行細則》《資金流轉管理標準》等內部制度要求，展開包含 ESG 風險在內的風險管理工作。2024 年，公司全面梳理子公司在 ESG 方面的風險現狀，識別出其面臨的潛在 ESG 風險，並積極採取應對和防範措施。

We integrate risk management and compliance requirements into all business and management processes. In strict accordance with internal policies such as the *Contract Handling Guidelines*, the *Asset Management Implementation Rules*, and the *Fund Flow Management Standards*, we conduct a variety of risk management activities, including ESG risks. In 2024, the Company comprehensively reviewed the ESG risk status of its subsidiaries, identified potential ESG risks, and actively implemented response and prevention measures.

同時，我們圍繞印章管理、流程權限變動、內部管理知識共享等方面展開內控培訓，其中有關《審批權限手冊》的培訓工作，我們梳理原有授權分類，細化業務審批授權，適當調整審批事項，並充分考量本集團業務管理事前、事中、事後關鍵風險，使授權體系達到總體風險可控。

Meanwhile, we conduct internal control training on areas such as seal management, process authority changes, and knowledge sharing for internal management. Specifically, for the training on the *Approval Authority Manual*, we reorganized existing authorization categories, refined business approval delegations, and adjusted approval items as needed. We also fully considered key risks at all stages of the Group's business management before, during, and after the event to ensure the authorization system achieves overall risk controllability.

管道內控審批權限培訓 Internal Control and Approval Authority Training for Pipe Operations



2024 年 9 月至 10 月，各子公司展開系列內控培訓工作，覆蓋銷售、廣告、研發、採購、費用、固定資產、人力資源等關鍵領域。培訓會詳細解析了架構及通用模塊的流程安排與操作方法，對關鍵負責人進行單獨權限解讀展開。

From September to October 2024, we conducted a series of internal control training sessions for the subsidiaries, which covered critical areas such as sales, marketing, R&D, procurement, expenses, fixed assets, and human resources. The training sessions provided detailed explanations of the structure, processes and operations of general modules, with tailored guidance on authorization for key personnel in charge.



內控培訓現場
On-site Training on Internal Control

內部審計 Internal Audit

我們根據《內部審計章程》《審批權限手冊》《工程管理內控流程手冊》和《倉儲管理內控流程手冊》等內部制度文件，定期展開包括中長期審計和年度審計等內部審計工作，並定期展開覆蓋碳排放合規管理、數字化審計、內部控制及風險管理審計案例等主題的審計培訓交流活動，持續提升審計水平。2024 年，我們對 45 家子公司的內控管理流程實施審計工作，覆蓋中國國內管道、建材家居、環境治理等領域，並同步對海外子公司展開抽檢內審，以確保審計工作符合當地法律法規。

In accordance with internal policies such as the *Internal Audit Charter*, the *Approval Authority Manual*, the *Engineering Management Internal Control Process Manual*, and the *Warehouse Management Internal Control Process Manual*, we regularly conduct internal audits, including medium-to-long-term and annual audits. We also organize periodic audit training and exchange activities on topics such as carbon emission compliance management, digital auditing, internal control, and risk management audit cases to continuously improve audit capabilities. In 2024, we conducted internal control audits on the management processes of 45 subsidiaries across various business segments in China, including pipes, building materials and home improvement, and environmental governance. Meanwhile, we performed sample-based internal audits on overseas subsidiaries to ensure compliance with local laws and regulations.



02 堅守品質 深化多元領域

Upholding Exceptional Quality for Multiple Categories

中國聯塑秉承「以質量為生命、以科技為龍頭、以顧客滿意為宗旨」的經營理念，始終將技術創新視為推動品牌發展的動力源泉，憑藉穩定可靠的產品與專業服務，不斷提升競爭優勢，奠定行業領軍地位。

Embracing the business philosophy of "taking quality as the lifeline, leading with technology and aiming for customer satisfaction", we consistently regard technological innovation as the driving force of brand development. We also leverage reliable products and professional services to continuously strengthen our competitive edge and solidify our leadership in the industry.

回應 SDGs
Response to SDGs



重要性議題 Material Issues	核心策略 Core Strategies
多元經營與經濟效益 Diversified operations and economic benefits	- 全方位擴展塑料管道及管件的應用層面，積極探索農業、工業管的市場機會 Expanding the application scope of plastic pipes and fittings in an all-round manner and actively exploring market opportunities in agricultural and industrial piping - 促進環保業務板塊發展 Promoting the growth of the environmental protection business
產品創新 Product innovation	- 加大研發的資源投放，吸納高層次人才，全力建設專業研發團隊 Increasing resource input in R&D, recruiting high-caliber talent, and building a professional R&D team - 推動行業數字化轉型，用科技激發產品創新與智能製造 Promoting the digital transformation of the industry, stimulate product innovation and smart manufacturing with technology
產品質量 Product quality	- 建立嚴格的質量管理體系與生產標準，實施全面的質量檢測程序 Establishing a rigorous quality management system and production standards, and implementing comprehensive quality inspection procedures - 重視質量文化建設，向員工展開質量管理培訓 Fostering a culture of quality and providing employees with quality management training
優質服務 Excellent service	建立有效溝通渠道，重視客戶反饋，迅速響應客戶需求以適應市場變化 Building effective communication channels, valuing customer feedback, and responding promptly to customer needs to adapt to market changes
負責任營銷 Responsible marketing	遵循真實、公正的營銷原則，規範廣告資源使用，避免誤導性、誇大性宣傳 Adhering to truthful and fair marketing principles, standardizing the use of advertising resources, and avoiding misleading or exaggerated promotional claims
隱私保護與數據安全 Privacy protection and data security	- 建立信息安全管理體系，保障數據安全，防範私隱洩漏 Establishing an information security management system to ensure data security and prevent privacy breaches - 加強全員信息安全培訓，提高員工信息安全意識 Strengthening information security training for all employees to raise their awareness of information security
知識產權 Intellectual property	- 制定知識產權保護制度，積極主動申請專利保護 Developing an intellectual property protection system and actively applying for patent protection - 建立監控體系，及時發現侵權行為，並通過法律手段追究侵權責任 Implementing a monitoring system to promptly identify infringements and pursue legal actions against infringers

關鍵績效 KPIs

- 客戶滿意度達 **98.08%**（2023：98.04%）
Customer satisfaction rate: **98.08%** (2023: 98.04%)
- 產品召回 **0** 宗
0 cases of product recall
- 科研開發和技術創新投入 **10.44** 億元（2023：12.38 億元）
RMB **1.044** billion invested in technological R&D and innovation (2023: RMB 1.238 billion)



智造創新產品

Innovating Products through Intelligent Manufacturing

中國聯塑堅持以科技為引擎、創新為驅動，積極建構高水平研發團隊，持續推動產品創新，以創新實踐推動企業變革，為高質量發展注入強動力。

Driven by technology and innovation, China Lesso persists in building competent R&D teams to continuously promote product innovation. Leveraging innovative practices to drive corporate transformation, we inject strong momentum into high-quality development.

拓展產品領域

Expanding Product Range

我們以技術創新與人才培養為發展基石，在推動主營產品多元化的基礎上，積極探索清潔能源的可持續發展路徑和環境治理的創新解決方案，深入佈局環保領域，為實現社會與生態的和諧共生貢獻企業力量。

We regard technological innovation and talent cultivation as the cornerstone of our development. While promoting the diversification of our core products, we actively explore sustainability pathways in clean energy and innovative solutions for environmental governance. By strategically expanding into the field of environmental protection, we contribute to achieving harmony between society and environment.

建立創新平台與團隊

Building Innovative Platforms and Teams

我們以產學研合作為連結，通過引進高層次科研人才，建構了一支專業化、高水平的研發團隊。此外，為全面激發創新潛力，我們不斷完善科研環境，先後建立廣東省高性能塑料管道工業設計中心、CNAS 中國合格評定國家認可委員會認可實驗室、國家認定企業技術中心、廣東省塑料成型加工技術企業重點實驗室、博士後工作站及廣東省塑料管道產業技術創新聯盟等。

Through industry-university-research cooperation and the recruitment of high-level research talent, we have successfully built a professional and highly competent R&D team. To fully unleash innovation potential and optimize our research environment, we have set up a series of advanced platforms, including the Guangdong Industrial Design Center for High-performance Plastic Piping, laboratories accredited by the China National Accreditation Service for Conformity Assessment (CNAS), nationally recognized enterprise technology centers, the Guangdong Provincial Key Laboratory of Plastic Molding and Processing, postdoctoral workstations, and the Guangdong Plastic Piping Industry Technology Innovation Alliance.

關鍵績效 KPIs

- 2024 年，本集團科研人員總數 **1,714** 人
In 2024, the Group had a research staff of **1,714**



主業產品多元創新

Diversifying the Innovation of Main Products

我們聚焦主營產品創新，持續推動研發領域的技術突破，致力於打造兼具卓越性能與前瞻設計的新產品。2024 年，本集團管道業務持續發力，通過提供高品質、技術領先的解決方案，助力農業種植、海洋資源可持續開發及城市基礎設施現代化建設，全面拓展產品應用領域。本年度科研與技術創新投入達 10.44 億元（2023 年：12.38 億元）。

Focusing on the innovation of main products, we relentlessly pursue technological breakthroughs in R&D and develop new products that combine exceptional performance with forward-thinking design. In 2024, our pipe business continued to grow. We also delivered high-quality, cutting-edge solutions to support agricultural cultivation, sustainable development of marine resources, and modernization of urban infrastructure, thus expanding the scope of application for our products. In 2024, we invested a total of RMB 1.044 billion in scientific research and technological innovation initiatives (2023: RMB 1.238 billion).

榮譽獎項

Honors

廣東聯塑獲獎情況 Honors of Guangdong Lesso

中國輕工業聯合會科學技術進步獎 **二等獎**（「塑料管道模具高效高精度智能化生產關鍵技術及產線」）
Guangdong Lesso was awarded **the Second Prize** for Scientific and Technological Progress by the China National Light Industry Council (Key Technologies and Production Line for High-Efficiency, High-Precision, and Intelligent Manufacturing of Plastic Pipe Molds)

廣東省輕工業聯合會科學技術進步獎 **一等獎**（「PVC 管道高效節能成型加工技術及裝備研發」）
The First Prize for Scientific and Technological Progress by the Guangdong Light Industry Council (R&D Project of High-Efficiency and Energy-Saving PVC Pipe Molding Technology and Equipment)

廣東省輕工業聯合會科學技術進步獎 **三等獎**（「礦用鋼簾線增強聚乙烯耐磨複合管製造關鍵技術的研發及產業化」）
The Third Prize for Scientific and Technological Progress by the Guangdong Light Industry Council (R&D and Industrialization of Key Technologies for Mining Steel Cord Reinforced Polyethylene Wear-Resistant Composite Pipes)

中國聯塑賦能長江三鮮綠色養殖智慧項目

China Lesso Empowers the Green Aquaculture Smart Project for the "Three Delicacies of the Yangtze River"



2024 年 4 月，我們憑藉專業技術與優質產品，成功服務宿遷市長江三鮮魚類工廠化循環水養殖項目。該項目總投資 10 億元，佔地 209.9 畝，聚焦高經濟價值水產的科研、養殖與銷售，我們憑著先進的循環水養殖技術，實現水資源的高效利用與循環再生，顯著降低養殖過程中的污染物排放，有效保護水生生態環境。

In April 2024, China Lesso leveraged its professional technologies and premium products to support the Factory-based Recirculating Aquaculture System (RAS) Project for Three-Specialty fish of the Yangtze River in Suqian, Jiangsu Province. With a total investment of RMB 1 billion and covering 209.9 mu, the project focuses on the research, breeding, and sales of high-value aquatic products. By employing advanced recirculating aquaculture technology, we achieved efficient utilization and recycling of water resources, significantly reduced pollutant emissions during the farming process, and effectively protected the aquatic ecological environment.



江蘇魚洋環保科技項目開工活動現場
Groundbreaking Ceremony of the Jiangsu Yuyang Environmental Technology Project

中國聯塑以高性能管材賦能寶應縣智慧農田建設

China Lesso Facilitates the Construction of Smart Farmland in Baoying County with High-performance Pipes



2024 年，我們在江蘇省寶應縣高標準農田建設項目中提供了關鍵技術支持。該項目覆蓋共計 1.2 萬畝農田，總投資 2,556.54 萬元，通過建構高效灌溉網絡，並使用我們自主研發的 PE100 混配料給水管實現了精準供水和智能調控，農田水資源利用率提升 30% 以上，顯著提高了糧食產量與農業效率。

In 2024, China Lesso provided critical technical support for a high-standard farmland construction project in Baoying County, Jiangsu Province. Covering 12,000 mu of farmland with a total investment of RMB 25.57 million, the project involved building an efficient irrigation network. With its self-developed PE100 mixed-material water supply pipes, the project achieved precise water supply and intelligent control, increased farmland water resource utilization by over 30%, and significantly boosted grain yield and agricultural efficiency.



江蘇省寶應縣高標準農田項目現場
High-standard Farmland Project Site in Baoying County, Jiangsu Province

推進智能生產

Promoting Intelligent Manufacturing

我們以「自動化、智能化」為生產轉型的戰略方向，憑藉對前沿技術的深度融合，在設備運行、數據監控及資源管理等核心環節實現了自動化應用的全面突破。2024 年，各子公司因地制宜，根據業務特性與市場需求，制定並落地智能化升級方案，成功完成多項定制化轉型項目，為高效生產與管理賦予了新動能。

China Lesso is spearheading the transformation toward "automated and intelligent" manufacturing. By seamlessly integrating cutting-edge technologies, we have achieved groundbreaking advancements in automation across core areas, including equipment operation, data monitoring, and resource management. In 2024, each subsidiary of China Lesso formulated and successfully completed several intelligent transformation and upgrading plans tailored to their business characteristics and market demands. These efforts have injected new momentum into efficient production and management.

四川聯塑節能真空泵組智能改造

Intelligent Transformation of Energy-saving Vacuum Pumps at Sichuan Lesso



2024 年，四川聯塑聚焦生產線的自動化與數字化轉型，通過節能真空泵組改造實現了高效節能的生產模式。此次改造覆蓋 PVC 主機抽濕、PPR 真空供料以及配件供料系統，將原有多台恆頻真空泵組升級為少量高效變頻泵組。通過一系列轉型優化，項目整體節能率達 40%-50%，在顯著降低生產能耗的同時，推動了生產智能化。

In 2024, Sichuan Lesso focused on automating and digitizing its production lines and achieved a highly efficient and energy-saving manufacturing model through the intelligent upgrade of energy-saving vacuum pump system. The transformation involved key systems, including PVC main machine dehumidification, PPR vacuum feeding, and accessory supply. Multiple fixed-frequency vacuum pumps were replaced with a smaller number of high-efficiency variable-frequency pumps. Through a series of optimization measures, the project achieved an overall energy-saving rate of 40%-50%, significantly reducing production energy consumption while advancing intelligent production.



四川聯塑節能真空泵組改造項目現場
Project Site of Energy-saving Vacuum Pump System Upgrade at Sichuan Lesso

南京聯塑智能製造系統示範應用

Demonstration Application of Intelligent Manufacturing System at Nanjing Lesso



2024 年 10 月，南京聯塑成功安裝智能製造系統，將原本依賴人工記錄的機台參數數據轉為自動實時上傳至公司服務器，實現生產數據的全流程追溯。該系統已覆蓋所有生產車間，全面提升生產效率、數據透明度與管理效能。

In October 2024, Nanjing Lesso successfully installed an intelligent manufacturing system. The company also replaced manual data recording with automated real-time uploads to its server, thus enabling full-process traceability of production data. The system has been applied at all production workshops, significantly enhancing production efficiency, data transparency, and management effectiveness.



南京聯塑智能製造系統應用介面
Interface of Intelligent Manufacturing System at
Nanjing Lesso

保護知識產權

Protecting Intellectual Property

知識產權保護是驅動創新發展的基石，也是塑造企業聲譽的重要支柱。我們持續完善知識產權管理制度，通過打擊冒牌營銷、專利地圖分析等多維度保護舉措，牢牢守護創新成果，確保在市場競爭中鞏固核心優勢。

Intellectual property protection is the cornerstone of innovative development and a pillar in shaping corporate reputation. We continuously refine our intellectual property management system and adopt a wide range of measures, such as brand protection and patent mapping analysis. These efforts safeguard our innovative achievements and strengthen our core competitive edge in the market.

知識產權管理體系

Intellectual Property Management System

我們遵循運營所在地知識產權相關法律法規，建構覆蓋商標與專利領域的全面管理體系。在商標管理方面，我們通過《商標管理辦法》規範商標註冊、使用、保護及檔案管理，並嚴格依據《打假維權管理辦法》處理侵權行為，切實保障商標權益的安全與價值提升。在專利管理方面，我們沿用《集團專利管理辦法（試行）》，細化部門職責分工，確保專利管理工作高效推進。

We adhere to the relevant laws and regulations governing intellectual property in the regions where we operate and establish a comprehensive management system covering trademarks and patents. Regarding trademark management, we regulate registration, usage, protection, and file management in accordance with the *Trademark Management Measures* and strictly handle infringements in line with the *Management Measures for Anti-counterfeiting and Rights Protection*. This approach ensures the protection and value enhancement of our trademark rights. For patent management, we implement the *Group-level Patent Management Measures (Trial)* to detail departmental responsibilities and ensure the efficient execution of patent management efforts.

知識產權保護舉措

Intellectual Property Protection Measures

我們積極申請專利、商標等知識產權，規範合作中的使用與歸屬條款，有效防範潛在糾紛。同時我們建構了知識產權預警機制，實時監測市場動態與競爭格局，提前化解風險，並設立獎勵機制，鼓勵舉報製假售假行為，全面提升創新能力與保護水平。

We actively apply for intellectual property rights such as patents and trademarks, standardize the terms of use and ownership in collaborations, and effectively prevent potential disputes. Meanwhile, we have put in place an intellectual property early risk-warning mechanism to monitor market trends and competitive situation in real time and resolve risks in advance. We also established a reward system to encourage reporting of counterfeit production and sales, thus comprehensively enhancing innovation capabilities and protection standards.

本年度，我們建立了覆蓋全國的打擊假冒工作體系，融合區域性日常打擊假冒與專項重點打擊假冒模式，維權隊伍深入市場展開調查，發現侵權行為即上報執法機關，情節嚴重者移交公安部門處理，確保追責到位。通過定期舉辦知識產權研討會，我們深入解析專利法與商標法，結合維權案例分享實踐經驗，全面增強員工的知識產權保護意識與專業能力。憑藉在創新實踐與知識產權管理中的卓越表現，2024 年，本集團再度榮獲「國家知識產權示範企業」稱號，彰顯領先實力與卓越擔當。

In 2024, we established a nationwide anti-counterfeiting system that integrates regional routine enforcement with targeted crackdowns. Our enforcement teams conducted in-depth market investigations, promptly reported infringements to regulatory authorities, and transferred severe cases to public security departments to ensure accountability. Through regular intellectual property seminars, we thoroughly analyzed the Patent Law and the Trademark Law, shared practical experience with relevant cases, and comprehensively enhanced employees' awareness and expertise in terms of intellectual property protection. Due to the outstanding performance in innovation and intellectual property management, the Group was once again honored as a "National Intellectual Property Demonstration Enterprise" in 2024, showcasing our strong leadership and exceptional commitment.

中國聯塑積極展開全國打擊假冒工作

China Lesso Actively Conducts a Nationwide Anti-counterfeiting Campaign



2024 年，我們積極展開覆蓋全國的打擊假冒工作。我們在走訪中發現市場上存在部分企業未經授權，擅自使用與中國聯塑註冊商標相似或相同的標誌。經過深入調查及證據收集後，我們向法院提起訴訟，要求相關侵權企業停止侵權行為並賠償損失。最終，法院經審理後作出判決，判定中國聯塑勝訴。

In 2024, we actively carried out a nationwide anti-counterfeiting campaign. During our market inspections, we discovered that some companies were using logos similar to or identical to China Lesso's registered trademarks without authorization. After a thorough investigation and evidence collection, we filed lawsuits in court and demanded that the infringers cease their unauthorized use and compensate us for the losses. As a result, the court ruled in favor of China Lesso after reviewing the case.

截至 2024 年 12 月 31 日累計專利 / 項 Cumulative Number of Patents as of December 31, 2024		
受理專利 Patents filed	專利總數 Total number of patents	5,312
	外觀專利數 Number of industrial design patents	357
	發明專利數 Number of invention patents	1,266
	實用新型專利數 Number of utility model patents	3,689
授權專利 Patent granted	專利總數 Total number of patents	4,237
	外觀專利數 Number of industrial design patents	327
	發明專利數 Number of invention patents	614
	實用新型專利數 Number of utility model patents	3,296
2024 年新增專利 / 項 Number of New Patents in 2024		
受理專利 Patents filed	專利總數 Total number of patents	300
	外觀專利數 Number of industrial design patents	11
	發明專利數 Number of invention patents	56
	實用新型專利數 Number of utility model patents	233
授權專利 Patents granted	專利總數 Total number of patents	278
	外觀專利數 Number of industrial design patents	18
	發明專利數 Number of invention patents	66
	實用新型專利數 Number of utility model patents	194

嚴控產品質量 Controlling Product Quality Strictly

中國聯塑始終將產品質量視為企業發展的重要支柱，堅持以科學嚴謹的管理理念建立全鏈條質量保障體系。從化學品管理到產品質量，我們嚴格遵循國際標準與行業法規，通過建立限用和禁用物質清單、優化生產流程、強化質量管控，確保產品滿足質量安全與環境合規要求，以實際行動彰顯可持續發展的企業擔當。

China Lesso consistently regards product quality as a pillar of corporate development and builds a full-chain quality assurance system based on scientific and rigorous standards. From chemical management to product quality, we strictly comply with international standards and industry regulations. By developing lists of restricted and prohibited substances, optimizing production processes, and strengthening quality control measures, we ensure that our products meet safety and environmental compliance requirements. Through these efforts, we demonstrate our corporate responsibility for sustainable development with concrete actions.

關鍵績效 KPIs

2024 年
In 2024

- 產品合格率與去年同期相比提升 **0.02%**
Product compliance rate increased by **0.02%** year-on-year
- 產品質量問題投訴與去年同期相比下降 **14.29%**
Product quality complaints decreased by **14.29%** year-on-year
- 已售產品總數中因健康與安全理由而須回收的百分比為 **0%**
Percentage of sold products subject to recall for health and safety reasons: **0%**



化學品管理 Chemical Management

在全面符合法律法規要求的基礎上，中國聯塑主動關注化學物質的識別、管控與替代工作，通過建立限用和禁用物質清單，嚴格把控生產運營各環節，並與材料供應商保持密切溝通，要求其提供相關化學品檢測報告。同時，我們實施化學品進行年度替換、配方調整等優化措施，以確保產品符合最新的市場與法規要求。2024 年，我們對生產和運營過程中使用的化學品進行了系統性識別，經嚴格審查，未發現使用任何法規限用或禁用的物質。

In full compliance with legal and regulatory requirements, China Lesso proactively identifies, controls, and replaces chemicals of concern. By preparing lists of restricted and prohibited substances, we strictly manage all aspects of production and operations. We also maintain close communication with material suppliers and require them to provide relevant chemical testing reports. In addition, we implement various optimization measures such as annual chemical replacements and formulation adjustments to ensure our products meet the latest market and regulatory requirements. In 2024, we systematically identified chemicals used in production and operations. After rigorous review, we found no use of any substances restricted or prohibited by regulations.

中國聯塑化學品管理承諾
China Lesso's Commitment to Chemical Management

我們承諾高度重視化學品的日常安全管理，以全面淘汰所有高度關注化學品作為長期目標，持續追蹤國內外法律法規動態，對標主流客戶最新標準要求，識別限用物質管理的提升空間。我們將制定有害物質淘汰計劃，致力於尋求替代品以減少和消除有害物質的使用。

We commit to prioritizing the daily safety management of chemicals and set the long-term goal of completely phasing out all chemicals of high concern. We continuously monitor domestic and international regulatory developments, align with the latest standards of major customers, and identify opportunities for improving the management of restricted substances. We will develop a plan to eliminate hazardous substances and strive to find alternatives to reduce and eliminate the use of hazardous substances.

在踐行綠色承諾方面，我們通過多項具體措施展現對環境保護和可持續發展的堅定承諾。以下是我們的主要行動方向：

In terms of fulfilling our green commitment, we have taken concrete measures to demonstrate our firm dedication to environmental protection and sustainable development. Our main actions include:

減少有害物質 Reducing hazardous substances ●

我們將設立明確目標和實現路徑，以逐步減少或淘汰產品中可能含有的在合規含量範圍內的有害物質。

We will set clear targets and implementation pathways to gradually reduce or eliminate hazardous substances that may be present in products within compliant limits.



推進無鉛化與有機錫減量計劃 Advancing lead-free and organotin reduction plans ●

目前產品已全面實現無鉛化，我們正積極推進減少產品中有機錫使用的計劃，以降低化學品對環境和健康的影響。

Our products are already fully lead-free, and we are actively working to reduce the use of organotin in products to minimize the impact of chemicals on the environment and human health.



嚴格管理危險溶劑和清洗劑 Strict management of hazardous solvents and cleaners ●

實驗室管理中，我們嚴格按照運營所在地法律法規規定，委託合格第三方處理危險溶劑和清洗劑，杜絕環境風險。

In terms of laboratory management, we strictly adhere to the laws and regulations of the regions where we operate. Hazardous solvents and cleaning agents are entrusted to qualified third parties for proper disposal to eliminate environmental risks.



新產品設計導入環境健康標準 Integration of environmental health standards in new product design ●

在新產品設計中，我們全面導入環境健康標準，優先選用可再生材料，減少水、能源和材料的消耗，降低有毒有害物質的使用

When designing new products, we fully incorporate environmental health standards, prioritize the use of renewable materials, reduce water, energy, and material consumption, and minimize the use of toxic and hazardous substances.



未來，我們將持續優化化學品管理流程，深入推進高關注化學物質的替代工作，建構更加安全、環保的生產體系。

In the future, we will continue to optimize our chemical management processes, further advance the substitution of chemicals of high concern, and build a safer and more eco-friendly production system.

產品質量管理 Product Quality Management

我們建立嚴謹的質量管理體系，通過科學制定檢測標準，在原材料選用、配方優化、生產流程控制到產品入庫的全流程實施覆蓋原料驗收、生產監控、成品抽檢的多層次質檢流程，確保每件產品在每個環節都達到質量合格合規的基礎上，不斷向更高的卓越品質邁進。

We have established a rigorous quality management system that spans the whole process from raw material selection, formula optimization, production process control to product warehousing through scientifically defined testing standards. We also implement a multi-layered quality inspection process covering raw material acceptance, production monitoring, and finished product sampling. This approach ensures that every product not only meets but also exceeds quality and compliance requirements at every step.

產品質量管理體系 Product Quality Management System

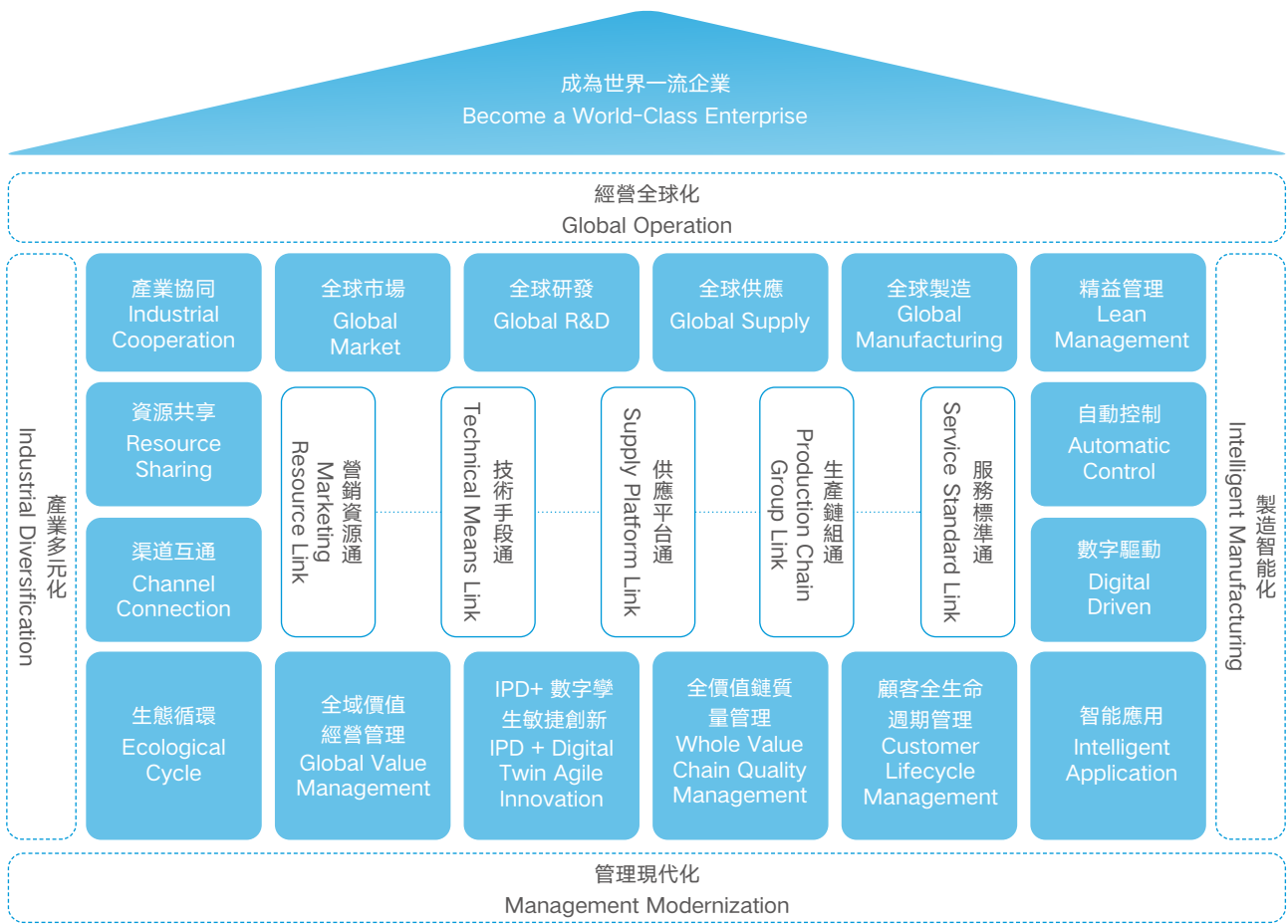
我們始終將產品質量視為企業發展的根基，以「四化」戰略為指引，即全球化經營、多元化產業佈局、智能化製造升級、現代化管理實踐，持續推動價值鏈的高品質發展。我們通過強化「五通」模式，即資源通、手段通、平台通、鏈組通、標準通，創建了涵蓋研發、生產、物流、服務等全流程的數字化解決方案，實現了各流程數據的高效流通與協同運作，同時，我們依託統一開發平台、智能化車間、QMS 質量管理系統及 PQC 生產控制系統等技術手段，實現精細化質量管控，從而實現五個「一流」，即一流的產品生產能力、一流的品牌塑造能力、一流的創新引領能力、一流的現代治理能力以及成為世界一流企業的目標。

We consistently regard product quality as the cornerstone of our corporate growth. Guided by our "Four Modernizations" strategy, namely globalized operations, diversified industrial layout, intelligent manufacturing upgrades, and modernized management practices, we keep promoting high-quality development across the entire chain. By deepening the "Five Links" model for resources, methods, platforms, chains, and standards, we have developed digital solutions covering R&D, production, logistics, and services to enable efficient data flow and collaborative operations at every stage. Furthermore, by leveraging advanced technical tools such as unified development platforms, smart workshops, the Quality Management System (QMS), and the Production Quality Control (PQC) system, we have achieved precise quality control. This empowers us to attain five "world-class" goals, namely a world-class enterprise with world-class product manufacturing capability, world-class brand-building capability, world-class innovation leadership capability, and world-class modern governance capability.

截至 2024 年底，中國聯塑 42 家子公司已全部通過 ISO 9001 質量管理體系認證，以體系化的質量管理確保貫徹執行卓越標準。本年度，廣東聯塑在廣東省輕工業質量管理小組成果發佈會中斬獲「金獎」，並榮膺廣東省輕工業「質量信得過班組建設優秀企業」。

As of the end of 2024, the 42 subsidiaries of China Lesso had all obtained ISO 9001 Quality Management System certification, which reflects our commitment to excellence through systematic quality management. In 2024, Guangdong Lesso won the "Gold Award" at the Guangdong Light Industry Quality Management Group Achievement Release Conference and was recognized as an "Outstanding Enterprise in Trustworthy Team Building for Quality" in the light industry of Guangdong Province.

「五通」「四化」協同高效數智質量管理模式
"Five Links and Four Modernizations" Collaborative and Efficient Digital Intelligence Quality Management Mode



「五通」：質量協同
"Five Links": Quality Collaboration

「四化」：協同發展
"Four Modernizations": Collaborative Development

質量管理培訓助力生產標準化提升
Quality Management Training Enhances Production Standardization



為全面提升檢測工作的規範性與精準性，中國聯塑檢測中心展開了質量管理培訓工作。培訓重點圍繞 CNAS 體系要求展開，通過理論講解與案例分析相結合的方式，明確了實驗室質量管理的職責分工，強化了實驗人員對質量標準的深刻理解。

China Lesso Testing Center conducted quality management training to comprehensively improve the standardization and accuracy of testing operations. Focusing on the requirements of CNAS, the training combined theoretical instruction with case studies to clarify the division of responsibilities in laboratory quality management and deepen the understanding of quality standards among laboratory personnel.



檢測中心 CNAS 培訓現場
CNAS Training Session at the Testing Center

產品質量檢驗
Product Quality Inspection

我們通過制定生產控制標準、按規範作業以及不合格品處理機制，建立了覆蓋全流程的質量檢驗體系，從而實現對產品及關鍵原材料實施嚴格管控。我們從原材料入廠的全面檢測，到生產環節的首檢、巡檢、自檢和每批次產品的可靠性抽檢，認真落實生產作業指導書的規範執行和 6S（整理、整頓、清掃、清潔、素養、安全）現場管理標準，全面細緻地把控每一環節，確保生產全過程達到最嚴格的質量標準。

We have established a comprehensive quality inspection system covering the entire production process by formulating production control standards, enforcing standardized operations, and implementing mechanisms for handling non-conforming products. Supported by this system, we rigorously monitor and control our products and key raw materials at every stage. We rigorously enforce production operation guidelines and the "6S" (Sort, Set in Order, Shine, Standardize, Sustain, and Safety & Health) on-site management standards throughout the entire process of comprehensive inspections upon raw material entry, initial inspections, patrol inspections, self-inspections, and random reliability sampling for each batch. This meticulous approach ensures that every stage of production meets the most stringent quality standards.

數字化質量管理
Digital Quality Management

我們以工廠製造執行系統（MES）為核心，優化全流程生產質量管理體系。該體系通過集中收集與分析質量數據，並嵌入嚴格的驗收標準，實現了從原材料至成品的全流程自動化質量判定。針對不合格產品或潛在質量風險，系統自動生成報廢或整改指令，並於 2024 年新增了不合格處理抄送用戶的功能，確保整改措施閉環落實。同時，文件控制模塊經過全面升級，新增了產品生命週期管理（PLM）項目文件模塊和轉發文件查看功能，並對文件控制、原料檢驗、過程檢驗以及客訴等模塊進行了全方位優化，進一步提升了整體質量管理的精準度和運營效率。

We have optimized the full-process production quality management system with the Manufacturing Execution System (MES) at its core. By collecting and analyzing quality data in a centralized way and integrating stringent acceptance criteria, the system enables automated quality assessments throughout the entire process from raw materials to finished products. In the event of non-conforming products or potential quality risks, the system automatically generates instructions for product scrapping or corrective actions. In 2024, a new feature was added to notify users of non-conforming product handling, thus ensuring the closed-loop implementation of corrective actions. In addition, the document control module was comprehensively upgraded with new functionalities, including a Product Lifecycle Management (PLM) module and a forwarded document review feature. Modules such as document control, incoming inspection, process inspection, and customer complaints have also been comprehensively optimized, further enhancing the precision and operational efficiency of overall quality management.

產品質量認證
Product Quality Certification

我們始終以全球化視野推動產品認證工作，嚴格遵循不同國家和地區的認證流程，積極參與產品品質認證，確保產品符合國際標準，不斷提升國際市場競爭力和認可度。2024 年，本集團新增 44 項海外產品認證，涵蓋塑料管道、儲能設備和建材等多個領域。其中，主營管道產品新增 32 項認證（含子公司 8 項），儲能產品 10 項，建材產品 2 項，覆蓋北美、東南亞、非洲及澳洲等地區。

We consistently advance our product certification efforts with a global perspective and rigorously comply with certification processes in different countries and regions. We also actively participate in product quality certifications to ensure compliance with international standards and continuously enhance our competitiveness and recognition in global markets. In 2024, the Group obtained 44 new overseas product certifications covering areas such as plastic pipes, energy storage equipment, and building materials. This includes 32 certifications for core piping products (including eight for subsidiaries), 10 for energy storage products, and two for building materials, covering regions such as North America, Southeast Asia, Africa, and Australia.



產品召回機制
Product Recall Mechanism

我們建構了高效精準的產品召回體系，通過多部門的密切協作，可快速響應客戶需求，高效解決現場問題，並對產品缺陷進行深入分析，明確訂立改進方向，確保後續優化措施有效落實。同時，我們通過技術與生產的相互配合，根據分析結果持續改良工藝，進一步提升產品質量和客戶滿意度。2024 年，本集團共接獲 204 件產品質量投訴，依託迅捷響應機制與完善的處理流程，所有問題均得到及時妥善解決，實現全年召回事件零發生。

We have built an efficient and precise product recall system characterized by close cross-departmental collaboration. This system enables rapid responses to customer demands, prompt resolution of on-site issues, and thorough analysis of product defects to identify clear directions for improvement and smoothly implement follow-up optimization measures. By integrating technical and production resources, we continuously refine processes based on analysis results and thus further improve product quality and customer satisfaction. In 2024, the Group received a total of 204 product quality complaints, all of which were resolved promptly and effectively through our agile response mechanism and robust procedures. As a result, zero recall incidents occurred during the year.



產品召回機制
Product Recall Mechanism

質量文化建設 Quality Culture Development

我們始終以質量文化建設為企業發展的重要抓手，通過系統化的舉措營造全員重視質量、追求卓越的良好氛圍。我們持續優化質量培訓體系，制定覆蓋多部門及生產車間的系統化培訓計劃與活動，培訓內容涵蓋質量管理體系優化、管控生產過程、處理客戶反饋等多個層面，有效提升了基層在質量改進中的驅動力。

We always prioritize quality culture as a cornerstone of corporate development and adopt systematic measures to create a workplace where all employees value quality and strive for excellence. We continuously enhance our quality training system by designing structured training programs and activities covering multiple departments and production workshops. The training sessions cover various topics, including quality management system optimization, production process control, and customer feedback handling, effectively empowering frontline staff to seek quality improvements.

鶴山聯塑舉辦質量知識競賽 Heshan Lesso Organizes Quality Knowledge Competition

2024 年 10 月，由中國聯塑品質工藝管理中心策劃、鶴山聯塑品質管理部組織的質量知識競賽決賽在鶴山聯塑辦公大樓成功舉辦。比賽匯聚生產、倉儲、品質、技改四大部門的 800 餘名一線員工踴躍參與，以寓教於賽的形式，激發了一線員工對質量知識的深入學習熱情，進一步推動質量安全文化的深度滲透。

In October 2024, the finals round of the Quality Knowledge Competition, organized by the Quality and Process Management Center and the Quality Management Department of Heshan Lesso, were held at Heshan Lesso's office building. The event brought together over 800 frontline employees from the production, warehousing, quality, and technical innovation departments. Through an engaging blend of education and competition, the event sparked enthusiasm for in-depth quality knowledge learning and further promoted the culture of quality and safety among frontline staff.



鶴山聯塑質量知識競賽現場
Quality Knowledge Competition at Heshan Lesso

中國聯塑「質量月」交流系列活動 China Lesso's "Quality Month" Exchange Series Activities



2024 年，我們以「質量月」活動為契機，組織展開生產品質管理深度分析會和品質知識競技大賽，通過多樣化形式全面深化全員品質意識建設。2024 年，我們以「質量月」活動為契機，組織開展生產質量管理深度分析會和質量知識競技大賽，通過多樣化形式全面深化全員質量意識建設。此次活動總計覆蓋超過 5,000 人次，共表彰 267 名本集團質量模範及管理傑出個人、33 名優秀質控協調員、6 個模範車間、1 個模範倉儲和 1 個品質典範，提升員工對質量管理的熱情與參與度。

During the "Quality Month" event in 2024, we organized a production quality management in-depth analysis meeting and a quality knowledge competition to enhance employees' quality awareness through diversified forms. The events attracted over 5,000 participants, with awards presented to 267 individuals recognized as the Quality Models and the Outstanding Individuals for Quality Management, 33 Outstanding Quality Control Coordinators, six Model Workshops, one Model Warehouse, and one Quality Management Benchmark within the Group. These activities significantly boosted employees' enthusiasm and engagement regarding quality management improvement.



「2024 年質量知識競賽」活動頒獎現場
Award Ceremony at the "2024 Quality Knowledge Competition"

提升客戶體驗

Improving Customer Experience

中國聯塑嚴格遵守《中華人民共和國消費者權益保護法》《商品售後服務評價體系》等相關規定，制定了《客戶服務管理辦法》《顧客滿意度測量辦法》等內部政策，從機制上夯實服務基礎，確保服務過程規範有序。

In strict accordance with the relevant provisions of the *Law of the People's Republic of China on the Protection of Consumers' Rights and Interests* and the *Evaluation System for After-sales Service of Commodity*, China Lesso has formulated internal policies such as the *Management Measures for Customer Services* and the *Measurement Methods for Customer Satisfaction*. These policies strengthen the service foundation at an institutional level and ensure standardized and orderly service processes.

提供優質服務

Providing Exceptional Service

我們完善了涵蓋售前、售中、售後的全流程服務體系，並通過建構雙軌管理機制，為不同客戶群體量身訂制契合需求的服務方案，力求在每個環節中為客戶提供周到支持，打造貼心服務體驗。

We have improved our full-process service system covering pre-sales, in-sales, and after-sales services. By establishing a dual-track management mechanism, we tailor service solutions to meet the needs of different customer groups. Our goal is to provide customers with thoughtful support at every stage and deliver a considerate service experience.



售前、售中、售後全流程服務體系
Pre-sales, In-sales, and After-sales Service System

第二屆「聯塑杯」水電工匠技能大賽成功舉辦 The 2nd "Lesso Cup" Plumbing and Electrical Craftsman Skills Competition Successfully Held



2024年11月，第二屆「聯塑杯」全國水電工匠技能大賽總決賽圓滿舉行。大賽設置了理論考試、管路設計與安裝等多項挑戰，由專業評委從施工質量、工程規範等多維度進行評分，推動行業技能水平提升。

In November 2024, the final round of the 2nd "Lesso Cup" National Plumbing and Electrical Craftsman Skills Competition were successfully held. The competition featured multiple challenges, including a theoretical exam and pipeline design & installation, with professional judges evaluating participants based on construction quality, project specifications, and other criteria to promote skill advancement in the industry.



「聯塑杯」水電工匠技能大賽比賽現場
A Scene from the "Lesso Cup" Plumbing and Electrical Craftsmen Skills Competition

中國聯塑亮相裝博會，全流程樹立家裝服務新標杆

China Lesso Sets New Benchmarks for Home Improvement Services at China (Guangzhou) International Building Decoration Fair



2024年6月，我們在「第四屆中國裝修零售新物種大會暨第二屆裝博會」上推出「安家堡」水電暖隱蔽工程整體交付新服務模式，推動行業服務標準的革新升級。「安家堡」以五星產品、五星工藝、五星標準、五星工匠、五星服務為核心，通過高品質整體解決方案全面提升居住環境的安全性與舒適度，為消費者帶來安心便捷的家裝體驗。9月，聯塑家裝經銷商齊聚一堂，召開「安家堡」本地方案宣導會，共同探討安家堡水電暖整體交付服務，致力為消費者提供可靠、安全、高效的水電裝修服務。

In June 2024, we launched the "An Jia Bao", an integrated delivery service model for plumbing, electrical, and heating concealed projects, at the 4th China Home Decoration & Retail New Species Conference & 2nd China (Guangzhou) International Building Decoration Fair to promote the innovation and upgrading of industry service standards. Featuring five-star products, five-star craftsmanship, five-star standards, five-star artisans, and five-star services, "An Jia Bao" aims to provide high-quality, integrated solutions to enhance the safety and comfort of living environments and offer consumers a worry-free and convenient home improvement experience. In September, distributors of Lesso Home Improvement attended the "An Jia Bao" Local Solution Promotion Conference, where they discussed the integrated delivery service for plumbing, electrical, and heating projects. Together, they are committed to providing consumers with reliable, safe, and efficient installation services.



中國聯塑推出「安家堡」家裝服務新模式
"An Jia Bao" Home Improvement Service Model Launched by China Lesso



中國聯塑「安家堡」本地方案宣導會
"An Jia Bao" Local Solution Promotion Conference Held by China Lesso



客戶投訴管理

Customer Complaint Management

我們建構了完善的客訴管理與監測機制，通過《客戶投訴管理辦法》《服務管理手冊》等規範處理流程，以及開設現場、投訴電話、微信、郵箱等多元化投訴渠道，將所有投訴清楚分類，並由專門團隊分類跟進，確保2小時內首次回覆，24小時內明確解決方案，以高效的機制和精準的服務持續提升客戶滿意度。同時，我們引入大數據平台實時收集產品與服務的全流程反饋，涵蓋關注、註冊、下單、配送及意見反饋等環節，並通過每月展開2-3次客戶意見調查，將調查結果記錄並進行深入分析，提出針對性的改進方案，確保及時分析與優化。

We have established a robust customer complaint management and monitoring mechanism. In accordance with the policies such as the *Management Measures for Customer Complaints* and the *Service Management Manual*, we standardize the handling process. Furthermore, we offer diverse complaint channels including on-site filing, hotline, WeChat, and email. All complaints are categorized and followed up by a dedicated team responsible for ensuring an initial response within two hours and a clear solution within 24 hours. Relying on efficient mechanisms and precise services, we continuously enhance customer satisfaction. Meanwhile, we have introduced a big data platform to collect real-time feedback on products and services throughout the entire process, including attention, registration, ordering, delivery, and feedback. By conducting two to three customer surveys on a monthly basis, we record the results and propose targeted improvement plans to ensure timely analysis and optimization.

關鍵績效 KPIs

2024 年
In 2024

- 客戶滿意度達 **98.08%** (2023: 98.04%)
Customer satisfaction rate: **98.08%** (2023: 98.04%)
- 客戶投訴數量 **4,349³** 宗 (2023 年: 11 宗)
4,349³ customer complaints (2023: 11)
- 投訴回覆率為 **100%** (2023 年: 100%)
Customer complaint response rate: **100%** (2023: 100%)



踐行責任營銷

Implementing Responsible Marketing

我們恪守真實宣傳之道，以誠信為基石倡導負責任的營銷方式，堅決杜絕誇大其詞與誤導行為，通過真實與品質贏得消費者信賴，為行業樹立透明、可信的營銷典範。

We adhere to the principle of promotion based on facts and advocate for responsible marketing based on integrity. We resolutely eliminate exaggerated claims and misleading behaviors. By winning consumer trust through authenticity and quality, we aim to establish a transparent and credible marketing model for the industry.

為全面提升對營銷標準規範和審核的管控能力，我們制定了《廣告資源管理辦法》，明確使用責任與權限，規範廣告宣傳、標籤標識及營銷活動的執行標準，確保內容符合法律法規要求。此外，我們還會通過不定期抽查，加強對廣告資源投放與使用的監督，對經辦人、責任人及相關合作方等的違規行為嚴格問責。

In order to comprehensively enhance our control over marketing standards and audit processes, we have formulated the *Management Measures for Advertising Resources*. This document clearly defines usage responsibilities and permissions and standardizes the execution of advertising promotions, labeling, and marketing activities to ensure compliance with legal and regulatory requirements. Additionally, we conduct irregular spot checks to strengthen supervision over the deployment and use of advertising resources. We also hold the executors, persons in charge, and relevant partners strictly accountable for any violations.

³ 2024 年本集團優化客戶投訴信息收集系統，從而擴大統計範圍。

³ In 2024, the Group enhanced the customer complaint information collection system that expanded the scope of statistics.

保護客戶私隱

Protecting Customer Privacy

我們將客戶、消費者及合作夥伴的數據安全作為企業責任的重要組成部分。在嚴格遵守相關法律法規的同時，我們制定《信息安全管理制度》，構建嚴謹的私隱保護體系，覆蓋從政策規範到操作流程的全鏈條管理，全面保障信息安全和客戶私隱。

We regard the data security of customers, consumers, and partners as a critical component of our corporate responsibility. While strictly adhering to relevant laws and regulations, we have formulated the *Information Security Management System* and established a rigorous privacy protection system. This system covers the entire chain from policy standards to operational processes, thus safeguarding information security and customer privacy on all fronts.

網絡安全管理

Network Security Management

中國聯塑依託「兩地三中心」（即順德龍江 - 武漢）數據架構，在網絡安全管理方面建構了主動防禦與被動防護相結合的多重安全防護體系，通過態勢感知系統實時監控和分析網絡威脅，快速識別潛在風險。2024 年，我們成功舉辦《網絡安全意識提升》培訓，吸引 800 餘人積極參與。我們完善可疑事件上報流程，確保員工能夠迅速報告異常情況並得到及時響應處理。

Leveraging the data architecture of "three centers in two cities" (Longjiang Town, Shunde - Wuhan), China Lesso has established a multi-layered security protection system that combines active defense and passive protection in network security management. Through a situational awareness system, we continuously monitor and analyze network threats in real time and rapidly pinpoint potential risks. In 2024, we held the training themed *Network Security Awareness Enhancement* with a total of over 800 participants. We have improved the reporting process for suspicious incidents to ensure employees can quickly report anomalies and receive timely responses and handling.

安全屏障建構

Security barrier construction

融合防火牆、入侵檢測、病毒防護等多重技術手段，建構多重網絡安全屏障，從容應對可能的安全挑戰，全面保障數據安全與系統穩定。

By integrating various technical methods such as firewalls, intrusion detection, and virus protection, we build a multi-layered network security barrier to effectively address potential security challenges and safeguard data security and system stability from all aspects.

風險監測與管控

Risk monitoring and control

數據中心深入分析全集團主機的威脅警報，精準封禁惡意 IP 與域名，並通過漏洞掃描、權限管理和補丁更新等措施強化風險複查，全面提升安全管理能力。

The data centers conduct in-depth analysis of threat warnings from the main servers of the Group, and precisely block malicious IPs and domains. Through measures such as vulnerability scanning, permission management, and patch updates, we strengthen risk reviews and enhance overall security management capabilities.

信息安全管理

Information Security Management

我們以搭建內部管理系統、強化賬戶權限控制為基礎，結合信息安全培訓、定期系統審計、相關 IT 人員簽署保密協議等舉措，全面建構堅實的信息安全防線，切實保障企業數據資產的安全與完整。

We have built a robust information security defense framework by establishing internal management systems and strengthening control over account permissions. In conjunction with measures such as information security training, regular system audits, and confidentiality agreements signed by relevant IT staff, we effectively ensure the security and completeness of corporate data assets.

系統權限 | System permissions

建立主數據系統，統一通過業務平台管理客戶、物料等核心數據，並只為相關部門賦予相應範圍權限。

We have established a master data system and manage core data such as customer and material information through a unified business platform. Access permissions are granted only to relevant departments within their respective scopes.

保密協議 | Confidentiality agreements

為保障敏感信息的機密性，要求敏感崗位的員工簽署保密協議，隔離 IT 員工與具體數據信息。

To ensure the confidentiality of sensitive information, employees in sensitive positions are required to sign a confidentiality agreement, which also serves to isolate IT staff from specific data information.

保護程序 | Protection procedures

完善數據安全保護程序，對電腦等終端進行監管，確保數據在傳輸及存儲過程中安全可控。

We have refined data security protection procedures to monitor terminals such as computers and ensure that data is secure and controllable during transmission and storage.

離職賬號 | Off-boarding accounts

針對離職員工，及時一鍵註銷或關閉相關賬戶權限，以避免賬號洩漏的風險。

For departing employees, relevant account permissions are promptly revoked or deactivated with a single click to mitigate the risk of account leaks.

信息內審 | Internal audit of information

內審部門每年度展開覆蓋各子公司的信息系統全面審查。

The Internal Audit Department conducts a comprehensive annual review of information systems covering all subsidiaries.

關鍵績效 KPIs

2024 年
In 2024

- 展開信息安全內審次數 **2** 次
2 internal audits on information security conducted
- 發生信息洩露事件 **0** 起（2023 年：0 起）
0 information disclosure accidents occurred(2023: 0)
- 發現信息安全隱患的整改率達到 **90%**
The rectification rate for the information security hazards discovered: 90%
- 共展開信息安全培訓 **3** 次，參加人數超過 **200** 人次
3 information security training sessions were carried out, with over 200 enrollments



03

綠色共生
引領低碳未來

Protecting the Environment Towards
a Low-carbon Future

中國聯塑堅持綠色運營原則，積極響應聯合國氣候行動和中國「2030 碳達峰、2060 碳中和」戰略目標，嚴格管理環境影響，全面優化業務運營的資源效益，深入分析氣候變化帶來的風險與機遇，積極投身科技創新與綠色產品研發，堅持走綠色可持續發展道路。

Upholding the principles of green operations, China Lesso actively responds to the United Nations' climate actions and China's strategic goals of "achieving a carbon emission peak by 2030 and carbon neutrality by 2060". We rigorously manage environmental impacts, comprehensively optimize the resource efficiency of business operations, deeply analyze the risks and opportunities brought by climate change, proactively engage in technological innovation and green product R&D and persist in pursuing a path of green and sustainable development.

回應 SDGs
Response to SDGs



重要性議題 Material Issues	核心策略 Core Strategies
能源資源使用 效益 Energy resource utilization efficiency	設定能源消耗量綠色目標，完善能源管理體系，打造綠色工廠，推進綠色建材認證，打造節能減碳、綠色環保產品 Setting green targets for energy consumption, improving the energy management system, establishing green factories, promoting green building material certification, and launching energy-saving, low-carbon, and eco-friendly products
排放物及廢棄物 管理 Emissions and waste management	- 設定溫室氣體排放量及有害、無害廢棄物產生量目標 - 制定多項廢棄物管理制度，分類合規處理廢棄物 - 優化生產工藝，推廣綠色辦公 Setting targets for greenhouse gas emissions and the generation of hazardous and non-hazardous waste Establishing multiple waste management systems, and classifying and handling waste in compliance with regulations Optimizing production processes and promoting green office
氣候變化應對 Response to climate change	- 展開氣候風險與機遇評估及財務影響評估，分析氣候變化對於企業經營的影響 - 制定氣候變化應對措施，優化能源與碳管理體系，減緩氣候變化影響 Conducting assessments of climate-related risks and opportunities, as well as financial impact assessments, to analyze the effects of climate change on business operations Formulating measures to address climate change, optimizing energy and carbon management systems, and mitigating the impacts of climate change
循環經濟 Circular economy	積極展開生產用水、包裝循環利用，從使用材料、包裝方式、使用方式方面實現節約包裝材料 Actively promoting the recycling of production water and packaging, and reducing materials in packaging through the use of materials, packaging methods, and usage methods
生物多樣性 Biodiversity	貫徹生物多樣性保護理念，從自身業務出發保護森林及海洋環境 Upholding the concept of biodiversity conservation and protecting forest and marine environments through business practices

關鍵績效 KPIs

2024 年
In 2024

- 光伏發電量 **5,655** 萬千瓦時（2023 年：3,567 萬千瓦時），約節省電費 **3,989.58** 萬元人民幣
56.55 million kWh of photovoltaic power generated (2023: 35.67 million kWh) and RMB **39.8958 million** of electricity costs saved
- 循環利用水資源 **526.43** 萬噸（2023 年：574.16 萬噸）
5.2643 million tonnes of water recycled (2023: 5.7416 million tonnes)
- 回收利用塑料 **160,389** 噸（2023 年：160,441 噸）
160,389 tonnes of plastic recycled (2023: 160,441 tonnes)



推動綠色目標

Promoting Green Targets

中國聯塑嚴格履行環境保護主體責任，將溫室氣體排放、廢棄物處理、水資源消耗及能源消耗管理作為重點關注領域，制定了一系列綠色發展戰略目標，通過減碳、減廢、節水等環境保護措施，深入探索本集團自身的節能減排潛能，促進經濟、社會、生態效益同步提升。

China Lesso strictly fulfills its environmental protection responsibilities. Focusing on the management of greenhouse gas (GHG) emissions, waste treatment, water resource consumption, and energy consumption, we have set a series of strategic goals for green development. Through measures such as carbon reduction, waste reduction, and water conservation, we aim to deeply explore the energy-saving and emission-reduction potential of the Group and simultaneously boost economic, social, and ecological benefits.

中國聯塑綠色目標⁴
China Lesso's Green Targets⁴

指標類型 Category	綠色目標 Green Targets	實施舉措 Initiatives
溫室氣體排放量 Greenhouse gas emissions	到 2025 年，單位產量範圍二溫室氣體排放強度較 2021 年（253.59 千克二氧化碳 / 噸）累計下降 3% By 2025, the Scope 2 GHG emission intensity per unit of production will decrease by 3% compared with 2021 (253.59 kgCO ₂ /tonne)	- 完善碳管理體系：制定《碳管理辦法》，構建科學的碳管理組織架構體系，強化對碳排放目標及路徑的宣導及推行。 Improvement of the carbon management system: Developing the <i>Carbon Management Measures</i>, building a scientific carbon management organizational system, and strengthening the publicity and implementation of carbon emission targets and pathways. - 發展清潔能源：加快佈設光伏新能源設施，推廣家庭綠電項目。 Development of clean energy: Accelerating the deployment of photovoltaic new energy facilities and promoting household green electricity projects.
有害廢棄物產生量 Hazardous waste generated	到 2025 年，有害廢棄物單位產值產生量控制在 1.1 千克 / 噸以下 By 2025, the hazardous waste generated per unit of production is controlled below 1.1 kg/tonne	- 改良生產工藝：持續改進產品生產工藝及流程，盡可能使用無害化學品。通過培訓加深各管理人員對危險廢棄物規範化管理認識，避免在貯存、利用、處置過程中的環境風險。 Optimization of production processes: Continuously improving product production techniques and processes, and using harmless chemicals whenever possible; strengthening the standardized management awareness of hazardous waste among management personnel through training, and avoiding environmental risks during storage, utilization, and disposal. - 有害廢棄物資源化利用：環保板塊研發出廢酸、鋁灰渣等材料無害化、資源化利用技術，在減少有害廢棄物排放量的同時，創造新的經濟價值。 Resource-based utilization of hazardous waste: Cutting-edge technologies for the harmless and resource-based utilization of materials such as waste acid and aluminum ash residue have been developed for the environmental protection segment, thus reducing the emission of hazardous waste and creating new economic value.

⁴ 中國聯塑綠色目標的統計範圍涵蓋本集團的管道業務。
⁴ China Lesso's green targets are based on the statistical scope of the Group's piping business.

指標類型 Category	綠色目標 Green Targets	實施舉措 Initiatives
無害廢棄物產生量 Non-hazardous waste generated	到 2025 年，無害廢棄物 ⁵ 單位產值產生量控制在 1.0 噸 / 噸以下 By 2025, the non-hazardous waste generated per unit of production ⁵ is controlled below 1.0 tonne/tonne	- 包材減量化：持續實行包材減量化、輕量化舉措，最大程度避免過度包裝。 Reduction of packaging materials: Continuously implementing measures to reduce packaging materials and adopt lightweight packaging, and minimizing over-packaging to the greatest extent. - 有效回收利用：可回收材料 100% 破碎回用，其餘部分拆解後委託第三方出售或分類處理。 Effective recycling: Recyclable materials are 100% crushed and reused, with the remaining parts disassembled and entrusted to third parties for sale or classified treatment.
耗水量 Water consumption	到 2025 年，單位產量總耗水強度 ⁶ 控制在 1.60 噸 / 噸以下 By 2025, the water consumption intensity per unit of production ⁶ is controlled below 1.60 tonne/tonne	- 加強循環用水管理：持續推廣水資源循環利用，通過設備節水改造避免水資源浪費。 Circular water management enhancement: Continuously promoting water recycling and avoiding water waste through equipment retrofits for water conservation. - 推廣節約用水：安裝節水型器具，宣傳增強全員節約用水意識。 Water-saving publicity: Installing water-saving devices and raising awareness of water conservation among all personnel.
能源消耗量 Energy consumption	到 2025 年，單位產量總電耗強度較 2021 年（236.47 千瓦時 / 噸）上升幅度控制在 3% By 2025, the increase in electricity consumption intensity per unit of production will be controlled below 3% compared with 2021 (236.47 kWh/tonne)	- 推進數字化能源管理：上線自主研發能源管理智能化系統，動態實時監控能源消耗情況。 Digital energy management: Launching an independently developed intelligent energy management system for dynamic real-time monitoring of energy consumption. - 展開節能改造：推進節能技改，持續展開餘熱回收，通過設備升級、改變混料方式等舉措，提高能源使用效率。 Energy-saving renovations: Promoting energy-saving technological transformation, continuously conducting waste heat recovery, and improving energy efficiency through measures such as equipment upgrades and changes in mixing methods. - 提升節能意識：展開節能培訓，幫助員工學習節能減排先進理念和技術，培養節能意識。 Enhanced awareness of energy conservation: Conducting energy-saving training to equip employees with advanced ideas and technologies for reducing energy consumption and emissions, and fostering a culture of energy conservation.

⁵ 包含生產過程中產生的水口料、次品以及辦公及生活區域產生的固體廢棄物。我們生產過程中產生的絕大部分無害廢棄物已進行循環利用。
⁶ Including degraded materials and defective products generated during production, and solid wastes generated in office and living areas. The vast majority of non-hazardous waste generated during our production process have been fully recycled.
⁶ 包含生產耗水量及生活用水量。耗水量主要來自於辦公及生活區域的生活用水，生產過程主要耗水來自循環水系統補水需求。
⁶ Including production and domestic water consumption. Water consumption mainly comes from domestic water in office and living areas, and the main water consumption in the production process comes from the water replenishment demand of the circulating water system.

踐行環境保護

Fulfilling Environmental Protection

中國聯塑緊隨中國「生態優先、節約集約、綠色低碳發展」環保戰略，致力於研發環保產品和拓展綠色產業領域，將環保理念踐行於業務發展之中。

Adhering to the national environmental protection strategy of "ecological priority, conservation and intensive, low-carbon development", China Lesso is dedicated to developing eco-friendly products, expanding into green industries, and integrating environmental principles into business development.

打造綠色產品

Creating Eco-friendly Products

我們始終秉持環保理念，順應市場綠色發展趨勢，在主業產品研發生產過程中穩紮穩打，積極開發綠色建材產品並持續推進綠色建材認證，致力於持續提升產品環保性能。

We have always adhered to environmental principles and adapted to the green development trends in the market. While maintaining steady progress in the R&D and production of our core products, we also actively develop sustainable building materials and pursue eco-labeled products certifications with the aim of enhancing the environmental performance of our products.

關鍵績效 KPIs

截至 2024 年底
As of the end of 2024

- 廣東聯塑共有 **15** 項管道產品獲得綠色建材產品認證
15 piping products of Guangdong Lesso have obtained the Green Building Material certification
- 建材家居板塊的聯塑日利門業油漆飾面實木複合室內門等 **4** 項產品通過中國環境標誌產品認證；廣東領尚科技實業有限公司木質櫃類 **47** 項產品通過中國環保標誌產品認證
4 products including painted solid wood composite indoor doors under the building materials and home improvement sector of Guangdong Lesso Rili Door Industry Co., Ltd. have obtained the China Environmental Labeling Product certification; 47 wooden cabinet products of Guangdong Lesso Technology Industrial Co., Ltd. have obtained the China Environmental Labeling Product certification



中國聯塑開發纏繞結構壁管材，實現資源節約

China Lesso Develops Spirally Enwound Structured-wall Pipes for Resource Conservation



中國聯塑成功開發了規格範圍廣泛的 PE A（註塑擴口纏繞管）、PE B/C(T)（克拉管）等系列結構壁產品，在接口部分採用了注塑結構壁設計，管身採用增強中空結構設計。中空結構可最大程度提高材料的利用率，使產品具有環剛度高、不易變形、柔韌性良好等特點，在保證性能的同時，有效實現資源節約。

China Lesso has successfully developed a wide range of structured-wall products, including PE A (injection-molded belled spirally enwound pipes) and PE B/C (T) (clamp pipes). These products feature an injection-molded, structured-wall design at the joints and a reinforced hollow structure for the pipe body. The hollow structure maximizes material utilization efficiency, resulting in products with high ring stiffness, resistance to deformation, and excellent flexibility. These features ensure performance while effectively achieving resource conservation.



纏繞結構壁管材
Spirally Enwound Structured-wall Pipes

產品全生命週期管理

Product Full Life Cycle Management

我們積極展開產品全生命週期管理工作,採用國際通用的生命週期評估方法,對本集團的主要產品線,如管道系統、建材家居、環保產品等,進行了全面、系統的評估,評估範圍覆蓋原材料獲取、生產、使用、回收到最終處置的全過程,深入分析產品在各個生命週期階段對資源利用、自然生態和人體健康造成的潛在影響。

We actively engage in product full life cycle management by adopting internationally recognized Life Cycle Assessment (LCA) methodologies. This approach enables a comprehensive and systematic evaluation of our major product lines, including piping systems, building materials and home improvement, and eco-friendly products. The assessment spans the entire process from raw material acquisition, production, and usage to recycling and final disposal. We also perform in-depth analysis of potential impacts on resource utilization, natural ecosystems, and human health at each stage of the product life cycle.



廣東領尚科技實業有限公司產品碳足跡證書
Product Carbon Footprint Certificate of Guangdong Lesso Technology Industrial Co., Ltd.

發展綠色產業

Developing Green Industries

我們順應全球綠色轉型之趨勢,在環保領域進行開拓和升級,專注於廢棄物資源化利用技術研發,以技術創新驅動可持續發展。2024 年,我們進一步深化綠色實踐,參與三井住友銀行 ESG 存款計劃,並探索存款資金與可持續領域的協同作用,為綠色產業發展注入新動力。

In alignment with the global shift toward green transformation, we are expanding and upgrading our efforts in the fields of environmental protection. We focus on the R&D of waste-to-resource utilization technologies to drive sustainable development through technological innovation. In 2024, we further deepened our green practices by participating in the Sumitomo Mitsui Banking Corporation's ESG Deposit Program and exploring the synergy between deposit funds and sustainable initiatives. Through these efforts, we have injected new momentum into the growth of green industries.

環保業務拓展研究

Expansion Research in Environmental Protection Sector

我們在環保領域持續深耕,以「節能環保、技術先行」為發展理念,不斷推動廢酸廢渣無害化處置及資源化利用。中國聯塑子公司永葆環保的常州廢酸資源綜合利用基地成功入選常州市第九批科技計劃項目「揭榜掛帥」專項,而由永葆環保下屬興發環境承建的佛山鋁加工行業再生資源綜合利用基地擴建項目,於 2024 年榮獲廣東省生態環境保護優秀示範工程稱號。本年度,永葆環保積極拓展半導體、通信電纜等新興行業的產廢市場及技術研發,新增除磷、除有機物、除重金屬等多項技術工藝儲備,有效提升了廢料資源綜合利用再生價值。

Guided by the development philosophy of "technology-based energy conservation and environmental protection", We continuously intensify our efforts toward environmental protection and advance the harmless disposal and resourceful utilization of waste acid and slag. The Changzhou Waste Acid Resource Comprehensive Utilization Base, operated by our subsidiary Yongbao Environmental, was included in the ninth list of Changzhou's science and technology planning projects under the open competition mechanism. Moreover, the Foshan Aluminum Processing Industry Renewable Resource Comprehensive Utilization Base Expansion Project, constructed by Xingfa Environmental, a subsidiary of Yongbao Environmental, was awarded the "Excellent Demonstration Project for Ecological Environmental Protection of Guangdong Province in 2024". In 2024, Yongbao Environmental actively expanded into the waste markets generated by emerging industries such as semiconductors and communication cables. The company also engaged in the technological R&D in these sectors and introduced new processes including phosphorus removal, organic matter removal, and heavy metal elimination, thus significantly enhancing the recycling value of waste resources.

常州廢酸資源綜合利用基地 Changzhou Waste Acid Resource Comprehensive Utilization Base



永葆環保「常州廢酸資源綜合利用基地」始終聚焦於廢酸鋁渣無害化處置及資源化綜合利用細分領域,針對金屬表面處理、機械製造等 10 多個行業產生的廢酸鋁渣,形成了一條節能、低碳、環保、高效的廢酸鋁渣資源化處置與循環利用工藝鏈,實現了「以廢治廢,變廢為寶」。目前永葆環保的廢酸鋁渣年處置規模達 21.5 萬噸 / 年,可循環利用製備各類淨水劑產品約 22 萬噸 / 年,在常州及周邊地區的危廢處置利用佔有率達 80%,服務客戶超 2,000 家,在減少廢棄物對環境污染的同時,推動了資源的高效循環利用。

The Changzhou Waste Acid Resource Comprehensive Utilization Base operated by Yongbao Environmental focuses on the harmless disposal and resourceful utilization of waste acid and aluminum slag. The base has developed an energy-efficient, low-carbon, eco-friendly, and highly efficient process chain for treating and recycling waste acid and aluminum slag from over 10 industries including metal surface treatment and mechanical manufacturing. Currently, Yongbao Environmental is able to process 215,000 tonnes of waste acid and aluminum slag and convert them into approximately 220,000 tonnes of water treatment agents each year. The base holds an 80% market share in hazardous waste disposal and utilization in Changzhou and surrounding areas, serving over 2,000 customers. This initiative not only reduces environmental pollution from waste but also promotes the efficient recycling of resources.



永葆環保廢酸資源綜合利用基地
The Waste Acid Resource Comprehensive Utilization Base of Yongbao Environmental

永葆環保攻克「含油廢棄物無氧低溫熱解」技術
Yongbao Environmental Makes Technological Breakthrough of "Anaerobic Low-Temperature Pyrolysis for Oil-containing Waste"



中國聯塑子公司永葆環保創新突破含油廢棄物處理難題，成功研發缺氧熱解回收技術。該技術相比傳統焚燒工藝，有著低能耗、清潔燃燒、無二噁英排放、重金屬固化及熱解炭渣安全利用等顯著優勢，每年可處理 7 萬噸含油廢棄物，回收 1.25 萬噸原料油，用於精煉製造，有助推進污泥無害化、減量化、高效資源化，以及資源回收與能源自給。

Yongbao Environmental, a subsidiary of China Lesso, has made an innovative breakthrough in treating oil-containing waste by successfully developing anaerobic pyrolysis recovery technology. Compared to traditional incineration methods, this technology offers significant advantages, including lower energy consumption, cleaner combustion, zero dioxin emissions, heavy metal solidification, and safe utilization of pyrolyzed carbon residues. With an annual processing capacity of 70,000 tonnes of oil-containing waste, the system recovers 12,500 tonnes of raw oil for refining and reuse. This breakthrough promotes the harmless treatment, volume reduction, and efficient utilization of sludge while enabling resource recovery and energy self-sufficiency.



低溫熱解技術實現高效資源化利用
Low-temperature Pyrolysis Technology Enabling Efficient Resource Utilization

此外，興發環境深入鋁灰特性，推進水解反應熱回收利用、氫氣回收利用、高鋁料產品資源化、活性氧化鋁產品資源化、氨氣產品資源化、再生鹽產品資源化等六大方向的鋁灰資源化利用，不斷拓展技術應用邊界，實現經濟與環境雙贏效益。

Furthermore, Xingfa Environmental has deeply studied the characteristics of aluminum ash and promoted resource utilization in six areas: heat recovery from hydrolysis reactions, hydrogen recovery, recycling of high-aluminum materials, recycling of activated alumina products, recycling of ammonia products, and recycling of regenerated salt products. By continuously expanding the boundaries of technological application, the company achieves the dual benefits of economic growth and environmental protection.

鋁灰廢氣治理副產廢酸綜合治理技術實現經濟、環境雙重效益
Comprehensive Treatment Technology for Waste Acid Byproducts from Aluminum Ash and Waste Gas Treatment Achieves Economic and Environmental Benefits



2024 年，興發環境深入展開鋁灰廢氣治理副產廢酸綜合治理技術研究，通過廢酸資源化技術及廢氣餘熱回收技術實現了資源高效利用與節能減排共同發展。其中，廢酸資源化技術轉化效率達到了 90%，節能率達到了 30%，帶來了顯著的經濟及環境雙重效益。

In 2024, Xingfa Environmental conducted in-depth research on the comprehensive treatment technology for waste acid byproducts from aluminum ash waste gas treatment. By implementing waste acid recycling and waste heat recovery technologies, the company achieved both efficient resource utilization and energy conservation. The waste acid recycling technology achieved a conversion efficiency of 90% and an energy-saving rate of 30%, delivering remarkable economic and environmental benefits.

關鍵績效 KPIs



- 2024 年，永葆環保在固廢處置與資源化再利用方面申請發明專利 **10** 件，授權發明專利 **7** 件，申報高新技術產品 **4** 項，主導和參與制定國家標準 **2** 項
- In 2024, Yongbao Environmental filed **10** invention patent applications and was granted **7** patents in solid waste treatment and resource recycling. The company also applied for **4** high-tech product certifications and led or participated in the development of **2** national standards.



傳遞綠色理念 Spreading Green Concepts

為了全面提升員工對環境保護的認知與實踐能力，促使員工深刻理解環境保護的重要性，我們展開多項環境保護及能源管理培訓，涵蓋節能減排、資源循環利用、環境合規等內容。2024 年，本集團展開環保知識培訓 48 場，內容涵蓋《6SK 管理活動及環境意識》《環境職安安全培訓》《QEO 體系認知與環境節能降耗知識培訓》等核心主題，共計 1,839 人次參與；展開能源管理培訓 70 場，包括《環保及節能降耗宣傳培訓》等專項課程，共計 3,534 人次參與。

To enhance employees' awareness and practical capabilities in environmental protection, we have carried out a wide variety of training programs on environmental protection and energy management. These training sessions cover topics such as energy conservation, resource recycling, and environmental compliance. In 2024, the Group conducted 48 environmental protection knowledge training sessions covering core topics such as the *6SK Management Activities and Environmental Awareness*, the *Environmental and Occupational Safety Training*, and the *QEO System Awareness and Environmental Energy Conservation Knowledge Training*, with a total of 1,839 enrollment. In addition, 70 energy management training sessions were held, covering specialized courses such as the *Environmental Protection and Energy Conservation Promotion Training*, with a total of 3,534 enrollments.

廣東聯塑節能培訓順利舉辦

Energy-saving Training Successfully Held by Guangdong Lesso



廣東聯塑於 8 月 16 日參與了順德區節能協會舉辦的 2024 年廣東聯塑節能培訓會議。培訓主要內容包括節能相關法律法規、標準、政策性文件，以及電力供應系統、空調及製冷系統等系統設備的節能技術與管理制度。通過此次培訓，本集團節能相關負責人學習了先進的節能減排理念與技術，為後續提升企業能效管理水平奠定了堅實基礎。

On August 16, Guangdong Lesso attended the 2024 Guangdong Lesso Energy-saving Training Conference organized by the Shunde Energy Conservation Association. The training mainly covered energy conservation-related laws and regulations, standards, policy documents, as well as energy-saving technologies and management systems for system equipment such as power supply systems, air conditioning, and refrigeration systems. Through this training, the leaders responsible for energy conservation in the Group learned advanced energy-saving and emission-reduction concepts and technologies, laying a solid foundation for further improving energy efficiency management.



環保與能源管理培訓現場

On-site Training of Environmental and Energy Management

堅持綠色運營 Upholding Green Operation

中國聯塑嚴格履行環境保護主體責任，依託健全的環境管理體系，不斷加強環境監測、廢棄物管控及噪音控制，全面強化環境風險管理，積極推行綠色生產運營。

China Lesso strictly fulfills its corporate responsibility for environmental protection. Leveraging our well-established environmental management system, we continuously strengthen environmental monitoring, waste management, and noise control. The Group enhances environmental risk governance from all aspects while proactively implementing green production and operations.

環境管理 Environmental Management

我們嚴格遵守《中華人民共和國環境保護法》《中華人民共和國水污染防治法》《中華人民共和國大氣污染防治法》等相關法律法規及行業標準，制定了《節能降耗管理規定》《能源管理手冊》《碳管理辦法》等一系列內部管控制度，並定期對制度合規性進行檢查，不斷健全本集團環境管理體系，落實環境風險隱患排查工作。截至 2024 年底，本集團共有 42 家子公司通過質量管理體系、環境管理體系、職業健康安全管理体系（QEO）認證，9 家子公司獲得能源管理體系認證。

We strictly comply with relevant laws and regulations, including the *Environmental Protection Law of the People's Republic of China*, the *Law of the People's Republic of China on Prevention and Control of Water Pollution*, and the *Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution*, as well as industry standards. We have established a series of internal control systems, such as the *Regulations on Energy Conservation and Consumption Reduction*, the *Energy Management Manual*, and the *Carbon Management Measures*. Through regular compliance audits and continuous enhancement of the Group's environmental governance system, we systematically implement environmental risk identification mechanisms. As of the end of 2024, 42 subsidiaries obtained certifications for Quality Management System, Environmental Management System, and Occupational Health and Safety Management System (QEO), and nine subsidiaries achieved Energy Management System certification.

環境管理體系 Environmental Management System

我們通過環境資源管理、應急響應機制、環境知識培訓、產品碳足跡管理等四大維度，強化對各層級單位及項目環境管理的規範和指導，持續跟蹤環境管理工作表現，及時實施糾正和預防活動，並對整改情況進行驗證，持續夯實環境管理體系，確保環境保護管理的有效性。

We strengthen the standardization and guidance of environmental management across all levels of units and projects from four dimensions: environmental resource management, emergency response mechanisms, environmental knowledge training, and product carbon footprint management. We continuously monitor environmental management performance, promptly implement corrective and preventive actions, verify the effectiveness of rectifications. Moreover, we consistently improve the environmental management system to ensure the effectiveness of environmental protection efforts.



環境風險管控

Environmental Risk Control

我們制定了《環境、職安管理運行控制程序》《環境、職安管理監視和測量控制程序》《環境因素識別、評價與更新控制程序》和《環境安全事故應急預案》等內部制度，定期組織展開環境因素識別及評價、法律法規識別及轉化工作，指導各子公司及生產車間排查隱患，制定環境事故應急處理流程，及時控制環境風險。2024 年，本集團未發生環境違規違法和受環保行政處罰的情況。

We have formulated internal policies such as the *Environmental and Occupational Safety Management Operation Control Procedures*, the *Environmental and Occupational Safety Management Monitoring and Measurement Control Procedures*, the *Environmental Factor Identification, Evaluation, and Update Control Procedures*, and the *Environmental Safety Accident Emergency Plans*. We regularly conduct the identification and evaluation of environmental factors, as well as the assessment and transformation of legal and regulatory requirements. We also guide subsidiaries and production workshops in identifying potential risks, and develop emergency response procedures for environmental incidents to promptly control environmental risks. In 2024, the Group experienced no environmental violations, illegal activities, or administrative penalties related to environmental protection.

環境因素識別、評價與更新 Identification, Evaluation, and Update of Environmental Factors	環境安全事故應急處理 Emergency Response to Environmental Safety Incidents
識別：各部門進行識別，需關注過去、現在、將來三種時態及正常、異常、緊急三種狀態下可能產生的環境影響，並考慮生產及相關活動全過程 Identification: Each department shall identify potential environmental impacts by considering past, present, and future perspectives, as well as normal, abnormal, and emergency conditions. This process should encompass the entire production process and all related activities	組織領導：總裁擔任組長，安監、行政、倉儲、物流、生產等多部門共同組成應急領導小組；各部門安全負責人，分管安全工作人員及具備專業技能人員組成現場應急小組 Organizational leadership: The chief executive serves as the team leader, an emergency leading team consists of officers of the safety supervision, administration, warehousing, logistics, production and other related departments; an on-site emergency team consists of security leaders of each department, staff responsible for security and personnel with professional skills
確認：各部門匯總環境因素評價，管理者代表進行因素的排查與判斷，體系辦匯總公司級重要環境因素 Confirmation: Each department shall consolidate its evaluations of environmental factors. The management representative will then conduct a thorough review and assessment of these factors, while the System Office will compile the key environmental factors at the corporate level	
評價：從資源能源消耗量、合規性、相關方建議、潛在影響後果程度等多維度評價環境因素 Evaluation: Environmental factors shall be assessed from multiple dimensions including resource and energy consumption, regulatory compliance, stakeholder feedback, and the potential magnitude of their impacts	事故分類：按事故影響分一般、重大兩類；按事故種類分火災、爆炸、油品洩漏、化學品洩漏、颱風等多種事故，分類制定預防及處理流程 Incident Classification: Incidents are categorized based on their impact into general and major incidents. They are also differentiated by type, such as fires, explosions, oil spills, chemical leaks, typhoons, and others. Specific prevention measures and response procedures will be formulated for each category
更新：當法律法規、業務發展方向、相關方訴求發生變化時，各部門應重新識別環境因素並評價 Update: When there are changes in laws and regulations, business development directions, or stakeholder requirements, each department shall identify and evaluate the relevant environmental factors again	

「三廢」管理 Management of "Three Types of Waste"

我們嚴格遵守運營地污染物和廢棄物有關法律和要求，制定《水污染防治管理規定》《大氣污染防治管理規定》和《廢棄物管理規定》等內部制度，保障各類污染物及廢棄物的合規排放，最大限度減少對環境的影響。

In strict accordance with relevant laws and requirements regarding pollutants and waste in regions where we operate, we have developed internal policies such as the *Regulations on the Prevention and Control of Water Pollution*, the *Regulations on the Prevention and Control of Atmospheric Pollution*, and the *Regulations on Waste Management*, to ensure the compliant discharge of various pollutants and waste and minimize our environmental impact.

廢水管理 Management of Wastewater

我們嚴格遵循相關法律法規要求，對生產循環水池加裝水質淨化處理設備，以改善冷卻循環水水質，並通過展開雨污分流改造，提高水資源利用率。我們每年依據《廣東省地方標準水污染排放限值》檢測污水排放，一旦發現超標，立即採取措施進行整改，嚴格確保清洗排污水和生活污水經三級過濾後合規達標排放。截至 2024 年底，廣東聯塑已加裝濾水系統 12 套，水質淨化處理設備 8 套。2024 年，本集團合法達標排放生活污水 2,298,045.82 噸（2023 年：2,373,840 噸）。

As required by relevant laws and regulations, we have added water purification and treatment equipment to our production circulating water pools to improve the quality of cooling circulating water. We have also increased water resource utilization efficiency by implementing rainwater and sewage diversion projects. Each year, we test our wastewater discharge in accordance with the *Discharge Limits of Water Pollutants in Guangdong Province*. In the case of any non-compliance identified, we immediately take corrective actions to ensure that all cleaning wastewater and domestic sewage undergo tertiary filtration before being discharged to meet standards. As of the end of 2024, Guangdong Lesso installed 12 sets of filtration systems and eight sets of water purification treatment equipment. In 2024, the Group discharged 2,298,045.82 tonnes (2023: 2,373,840 tonnes) of domestic sewage as per relevant standards.

廢氣管理 Management of Waste Gas

我們遵循法律法規和國家標準要求，針對在生產經營過程中產生的氮氧化物、硫氧化物、顆粒物等主要廢氣排放物實施嚴格監控和管理。我們通過定期展開噴淋塔換水、清理濕電清洗裝置、為吸附箱更換活性炭等維護舉措，確保廢氣治理設備的良好運行。同時，我們引入先進工藝，對廢氣處理設施進行改造升級，從源頭到末端全方位控制廢氣的產生與排放。

We rigorously comply with relevant regulations and national standards by implementing comprehensive monitoring and management for major exhaust emissions, including nitrogen oxides (NO_x), sulfur oxides (SO_x), and particulate matter generated during production and operations. We ensure the proper functioning of waste gas treatment equipment through regular maintenance measures, including changing the water in spray towers, cleaning wet electrostatic precipitators, and replacing the activated carbon in adsorption boxes. Furthermore, we introduce advanced processes to upgrade and modify waste gas treatment facilities, thus achieving all-round control over the generation and emission of waste gas from the source to the endpoint.

廣東聯塑展開廢氣治理設備升級改造 Guangdong Lesso Upgrades Waste Gas Treatment Equipment



為提高廢氣治理效率，更好滿足環保管理部門要求，廣東聯塑於 2024 年將部分車間的廢氣治理設備由原本的「低溫等離子 +UV 光解」工藝升級改造成「幹式過濾 + 二級活性炭吸附」工藝，並在廠區增加一套活性炭集中再生設備。此次升級改造不僅改善了大氣環境質量，同時減少了電能消耗，並實現再生後的活性炭循環利用。

To enhance emission control efficiency and strengthen regulatory compliance, Guangdong Lesso upgraded its exhaust treatment systems in some of its workshops in 2024. The original "low-temperature plasma + UV photolysis" process was replaced with a "dry filtration + secondary activated carbon adsorption" process. Besides, a centralized activated carbon regeneration equipment was installed within the plant. This upgrade has improved air quality, reduced electricity consumption, and enabled the recycling of regenerated activated carbon.



「幹式過濾 + 二級活性炭吸附」VOC 治理設備
"Dry Filtration + Secondary Activated Carbon Adsorption" VOC Treatment System

2022-2024 年廢氣排放量 Waste Gas Emissions from 2022 to 2024

年度 Year	NO _x / 千克 NO _x (kg)	SO _x / 千克 SO _x (kg)	VOC 排放量 / 噸 VOC Emissions (Tonne)	顆粒物排放量 / 噸 Particulate Matter Emissions(Tonne)
2022	399.09	1.99	365.07	311.48
2023	735.33	3.68	1,016.07	76.73
2024	716.46	3.58	646.18	123.04 ⁷

廢棄物管理 Management of Waste

我們嚴格按照《中華人民共和國固體廢物污染環境防治法》《危險廢物管理計劃和管理台賬制定技術導則》《危險廢物識別標誌設置技術規範》《危險廢物貯存污染控制標準》等法律法規要求，落實廢棄物規範管理工作，採取有力措施確保危險廢棄物 100% 安全合規處置，推動無害廢棄物高效回收利用。

We strictly implement waste management procedures in accordance with laws and regulations such as the *Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste*, the *Technical Guideline for Deriving Hazardous Waste Management Plans and Records*, the *Technical Specification for Setting Identification Signs of Hazardous Waste*, and the *Standard for Pollution Control on Hazardous Waste Storage*. Furthermore, we adopt effective measures to ensure the safe and compliant disposal of 100% of hazardous waste and promote the efficient recycling and utilization of non-hazardous waste.

⁷ 2024 年我們相較 2023 年進一步提升統計能力並完善顆粒物排放量統計範圍，導致顆粒物排放量統計值有所上升。

⁷ In 2024, we further enhanced our statistical capacity and improve the scope of our particulate matter emissions statistics compared to 2023, resulting in an increase in the value of particulate matter emissions statistics.

有害廢棄物管理：我們當前業務不涉及高放射性廢物，針對其他有害廢棄物，我們按規存放於危廢倉庫中並粘貼相應標籤，對相關負責人員定期展開規範化管理培訓，設置台賬並進行現場管理。此外，我們的環保板塊積極探索危廢處置技術，充分回收利用廢酸鋁渣中的鋁、鐵資源，形成了一條節能、低碳、環保、高效的廢酸鋁渣資源化處置與循環利用工藝鏈，提升了廢料資源綜合利用再生價值。

Hazardous waste management: Our current operations do not involve high-level radioactive waste. For other hazardous waste, we store it in designated warehouses with appropriate labeling. We provide regular, standardized training for the personnel involved and set up accounts records for on-site management. Furthermore, the environmental protection departments actively explore hazardous waste treatment technologies to efficiently recycle aluminum and iron resources from waste acid aluminum slag. We have developed an energy-efficient, low-carbon, eco-friendly, and highly effective process chain for the resource utilization and recycling of waste acid aluminum slag, thus enhancing the comprehensive regenerative value of waste materials.

無害廢棄物管理：我們在日常生產經營中積極採取有效措施減少廢棄物產生，支持從源頭減量，針對生產過程中可回用的廢塑料、不合格塑料，我們將可回用部分 100% 破碎後回用，實現物料最大程度重複利用。同時，我們推廣使用環保的水性塗料，進行激光噴碼改造，盡量避免因塗料及其容器產生的有害廢棄物。

Non-hazardous waste management: In our daily production and operations, we actively implement effective measures to reduce waste generated from the source. For recyclable waste plastics and non-conforming plastics generated during production, we crush and reuse 100% of the recyclable portions, thus maximizing material reuse. Meanwhile, we promote the use of eco-friendly, water-based coatings and have implemented laser coding modifications to minimize the generation of hazardous waste from coatings and their containers.

廣東聯塑展開危險廢棄物規範化現場管理培訓
Guangdong Lesso Holds Standardized On-site Management Training for Hazardous Waste

2024 年 9 月 27 日，廣東聯塑組織各產廢部門危險廢物現場管理人員展開危險廢物規範化現場管理培訓，培訓內容包括危險廢物的基本概念、危險廢物識別標誌設置技術規範、危險廢物規範化環境管理常見問題和處罰案例等。此次培訓不僅加深了各管理人員對於危險廢物規範化管理的認識，還提高了管理人員危險廢物規範化現場管理的能力。

On September 27, 2024, Guangdong Lesso organized a training session for on-site hazardous waste management personnel from various waste-generating departments. The training covered basic concepts of hazardous waste, technical specifications for hazardous waste identification signs, common issues in standardized environmental management of hazardous waste, and case studies of penalties. This training not only deepened the management personnel's understanding of standardized hazardous waste management but also improved their ability to implement standardized on-site management of hazardous waste.



危險廢棄物規範化現場管理培訓
Standardized On-site Management Training for Hazardous Waste

有害廢棄物處理方式
Methods of Hazardous Waste Treatment

有害廢棄物種類 Hazardous Waste Type	處理方式 Treatment Method
廢礦物油類 Waste mineral oil	- 按規存放於危廢倉庫中並粘貼相應標籤，設置台賬並進行現場管理 It is properly stored in hazardous waste warehouses with appropriate labels, with accounts set up for on-site management - 交由第三方有資質公司進行專業無害化處理，主動接受第三方監測 It is transferred to qualified third parties for professional and harmless treatment, and is actively subject to third-party monitoring
廢乳化液 Waste emulsion	
油墨、塗料廢物 Waste printer ink and paint	
含汞廢物 Mercury-containing waste	
廢酸、化驗室的廢液 Waste acid and waste liquid from laboratories	
廢鹵化有機溶劑 Waste halogenated organic solvents	
廢有機溶劑 Waste organic solvents	
化學品空瓶、空罐 Empty chemical containers and empty cans	

無害廢棄物處理方式
Methods of Non-hazardous Waste Treatment

無害廢棄物種類 Non-hazardous Waste Type	處理方式 Treatment Method
銅沙 Copper scraps	- 可回收部分 100% 破碎回用，如不能回用則對廢品進行拆解後，嚴格分類處理 The recyclable part is 100% crushed and recycled. If it cannot be recycled, the waste is dismantled and strictly sorted and processed - 金屬等可回收材料，交由材料供應部門委託交由下游處置商 Recyclable materials such as metals are entrusted to downstream disposers by the materials supply department
銅類複合帶邊角料餘料 Leftover copper composite strips	
廢鐵、鋁材 Iron scraps and waste aluminium materials	
廢膠帶、紙皮、廢木頭、包裝物 Used tape feeder, cardboard, waste wood, and packing materials	
錫渣、電子元件管腳和導線等 Tin dross, pins and wires from electronic components	
廢塑料、不合格品塑料 Waste plastics, plastics contained in non-conforming products	分類儲存，用袋裝於垃圾桶並加蓋，定期消毒，送交環保公司處理 It is stored by category, placed in bags inside covered garbage bins, regularly disinfected, and delivered to environmental protection companies
生活垃圾、廚餘垃圾 Domestic waste and kitchen garbage	

2022-2024 塑料回收量
Volume of Plastic Recycled from 2022 to 2024

年度 Year	塑料 / 噸 Plastic (Tonne)
2022	156,896
2023	160,441
2024	160,389

2022-2024 有害廢棄物產生量及排放密度
Volume of Hazardous Waste Generated and Emission Intensity from 2022 to 2024

年度 Year	產生有害廢棄物 / 噸 Hazardous Waste Generated (Tonne)	有害廢棄物排放密度 噸 / 百萬人民幣營收 Hazardous Waste Emission Intensity (Tonne/ RMB 1 million of operating revenue)
2022	7,203	0.23
2023	5,813	0.19
2024	5,239	0.19

2022-2024 無害廢棄物產生量及排放密度
Volume of Non-hazardous Waste Generated and Emission Intensity from 2022 to 2024

年度 Year	產生無害廢棄物 / 噸 Non-hazardous Waste Generated (Tonne)	無害廢棄物排放密度 噸 / 百萬人民幣營收 Non-hazardous Waste Emission Intensity (Tonne/ RMB 1 million of operating revenue)
2022	219,905	7.15
2023	224,033	7.26
2024	213,147	7.89

關鍵績效 KPIs

2024 年
In 2024

- 合規處置有害廢棄物 **5,610** 噸 (2023 年 5,114 噸)
5,610 tonnes of compliant disposal of hazardous waste (2023: 5,114 tonnes)
- 合規處置無害廢棄物 **210,121** 噸 (2023 年 224,052 噸)
210,121 tonnes of compliant disposal of non-hazardous waste (2023: 224,052 tonnes)



綠色工廠建設
Green Factory Construction

我們高度重視綠色工廠建設，在車間實施「6SK」（即「整理」「整頓」「清潔」「清掃」「紀律」「安全」和「健康」）現場管理要求，持續推進綠色工廠認證相關工作。截至 2024 年末，廣東聯塑、武漢聯塑、四川聯塑、陝西聯塑、烏魯木齊聯塑獲得國家工信部綠色工廠認證，聯塑日利門業、南京聯塑獲得省級綠色工廠認證。

We highly value green factory construction, implement the "6SK" (Sort, Set in Order, Shine, Standardize, Sustain, and Safety & Health) on-site management requirements in our workshops, and advance the certification of green factories. As of the end of 2024, Guangdong Lesso, Wuhan Lesso, Urumqi Lesso, Shaanxi Lesso and Sichuan Lesso have received the national-level "Green Factory" certification from the Ministry of Industry and Information Technology, while Guangdong Lesso Rili Door Industry Co., Ltd, Nanjing Lesso achieved the provincial-level "Green Factory" certification.

四川聯塑獲評國家級綠色工廠稱號
Sichuan Lesso was Awarded the National-level "Green Factory"

四川聯塑自成立以來，始終將綠色發展作為企業核心戰略之一，通過引入高效節能設備，積極開發利用可再生能源，採用低污染、無毒害的原材料和先進的生產工藝，智能化監控能源消耗和污染排放等舉措，以實際行動踐行清潔生產，實現經濟效益與環境保護雙贏。2024 年，四川聯塑獲評國家級綠色工廠稱號。

Since its foundation, Sichuan Lesso has consistently prioritized green development as a core corporate strategy. Through measures such as introducing high-efficiency and energy-saving equipment, actively developing and utilizing renewable energy sources, adopting low-pollution and non-toxic raw materials, and employing advanced production processes and intelligent monitoring of energy consumption and pollutant emissions, the company has put clean production into practice and achieved dual benefits of economic growth and environmental protection. In 2024, Sichuan Lesso was recognized as a national-level "Green Factory".

聯塑日利門業獲評省級綠色工廠
Guangdong Lesso Rili Door Industry was Awarded the Provincial-level "Green Factory"

聯塑日利門業秉承中國聯塑自動化、智能化的生產發展戰略，逐步實現在設備管理、監控、數據獲取等方面的自動化應用，全面促進生產方式的綠色、精細化轉型，降低溫室氣體和廢棄物排放，減少能源、水資源消耗，踐行企業環境保護責任。2024 年，聯塑日利門業順利通過省級綠色工廠認證。

Adhering to China Lesso's development strategy for automated and intelligent production, Lesso Rili Door Industry has gradually implemented automated applications in areas such as equipment management, monitoring, and data acquisition, comprehensively promoting a green and refined transformation of production methods. This initiative has reduced greenhouse gas and waste emissions, minimized energy and water consumption, and fulfilled the corporate responsibilities for environmental protection. In 2024, the Company successfully obtained the provincial-level "Green Factory" certification.

噪音控制
Noise Control

我們嚴格遵循《工業企業廠界環境噪音排放標準》，制定《噪聲污染管理規定》，嚴格落實高噪聲設備隔聲、消聲、減振，通過加強日常維護降低摩擦噪聲等措施，確保廠界噪聲達標。針對工位噪音，我們設置噪音控制標準，定期監測與改善噪音，並且為工區人員提供保護措施，最大限度降低噪音帶來的影響。

In strict compliance with the *Emission Standard for Industrial Enterprises Noise at Boundary*, we have formulated the *Regulations on Noise Pollution*. We rigorously implement various measures such as sound insulation, noise reduction, and vibration damping for high-noise equipment. Through enhanced daily maintenance, we also minimize frictional noise and ensure that noise levels at the factory boundary meet the required standards. For workstation noise, we have set noise control standards and regularly monitor and improve noise levels. Furthermore, we provide protective measures for personnel in work areas to minimize the impact of noise.

噪音管理
Noise Management

噪音源頭控制 Controlling Noise at Source	噪音傳播路徑控制 Controlling Noise Transmission Path	噪音控制標準設置 Setting Noise Control Standards
- 及時更換噪音大的老舊設備 Promptly replacing outdated and noisy equipment - 為破碎輸送系統管道加裝隔音棉，取消冷料輸送流程中的震動塔 Installing sound insulation cotton on the pipes of the crushing and conveying systems, and eliminating the vibration tower in the cold material conveying process - 對管件自動包裝機、破碎房、車間風機房進行隔音改造 Implementing soundproofing modifications for automatic pipe packaging machines, crushing rooms, and fan rooms of the workshop - 監測設備振動值並及時處理 Monitoring equipment vibration values and addressing issues in a timely manner - 在廠區及辦公區域範圍內行駛車輛禁止鳴笛 Prohibit honking within the factory and office areas	- 採用短距輸送設備擴大員工與噪音源距離 Utilizing short-distance conveying equipment to increase the distance between employees and noise sources - 對風機房、壓縮機房等噪音大的區域圍蔽隔音 Enclosing and soundproofing high-noise areas such as fan rooms and compressor rooms - 對破碎車間採取密閉措施 Adopting enclosure measures for crushing workshops - 設置破碎區輸送降噪系統、衛床設備隔音防護裝置 Installing noise reduction systems in crushing areas and sound insulation devices in punch machines - 對自動化機改設備增加隔音系統 Adding sound insulation systems to automated machine retrofitting equipment - 拉遠設備區與員工工作區距離 Increasing the distance between equipment areas and employee work areas - 為員工配備合規的耳罩、耳塞等勞保用品並指導員工合理佩戴 Equipping employees with labor protection supplies such as earmuffs and earplugs, and instructing them on the proper usage	- 工位噪音：≤ 85dB(A) Workstation noise: ≤ 85dB(A) - 廠界噪音：白天≤ 65dB(A)； 夜間≤ 55dB(A) Factory boundary noise: ≤ 65dB(A) in daytime; ≤ 55dB(A) at night - 當工位噪音≥ 110dB(A)，應立即停止生產進行整改 In the case of the workstation noise ≥ 110dB(A), production shall be immediately stopped for rectification

綠色辦公
Green Office

我們提倡綠色辦公，制定《綠色辦公行動指南》，明確綠色辦公的行動責任主體，並且在每位新員工入職前提供包含綠色辦公相關內容的培訓，致力於將環保理念深植於每一位員工心中。

As an advocate for green office, we have formulated the *Green Office Action Guidelines*, which clearly defines the responsibilities for green office initiatives. Furthermore, we provide on-boarding training on green office for every new employee, with the goal of fostering a strong sense of environmental protection among all employees.

在辦公區域，我們對空調、照明燈等設備進行管理，倡導節約用電，安排24小時巡檢關閉無人辦公區照明設備，避免能源浪費。通過常用墨盒重複充裝碳粉、紙張雙面列印、廢紙張重複利用等綠色辦公舉措，我們有效提高了資源綜合利用效率。同時，我們使用森林管理委員會（FSC）認證紙張用於名片列印，彰顯我們對可持續森林管理和環境保護的承諾。

In office areas, we manage equipment such as air conditioning and lighting to promote energy conservation. We've implemented 24-hour inspections to turn off lighting in unoccupied office areas, thereby avoiding energy waste. Through green office initiatives such as refilling used toner cartridges, double-sided printing, and reusing waste paper, we have effectively improved the comprehensive utilization efficiency of resources. Furthermore, we use Forest Stewardship Council (FSC) certified paper for business card printing, demonstrating our commitment to sustainable forest management and environmental protection.

在生產區域，我們採用工廠製造執行系統（MES），實現單據無紙化，在提升信息傳遞效率的同時，減少紙張浪費。2024年，本集團使用的紙質類耗材共計18,134噸。

In production areas, we adopt a Manufacturing Execution System (MES) to achieve paperless documentation. This approach not only enhances information transmission efficiency but also reduces paper waste. In 2024, the Group used a total of 18,134 tonnes of paper-based consumables.



生物多樣性保護

Biodiversity Conservation

我們積極降低對自然的影響和依賴，承諾保護森林並且以生態友好的方式發展我們的業務，避免在全球涉及重要生物多樣性的地點附近展開運營活動。此外，隨著海洋經濟的蓬勃發展，長期的過度捕撈嚴重破壞了海洋生態平衡，海洋生態環境正面臨前所未有的挑戰。我們依託自身業務與技術實力，積極探索可改善海洋生態環境的養殖解決方案，致力於實現人與自然的和諧共生。

We actively strive to reduce our impact on and dependence on nature and are committed to protecting forests and developing our business in an eco-friendly manner. We also make a point of avoiding operations near globally significant biodiversity areas. With the booming development of the marine economy, long-term overfishing has severely disrupted the balance of marine ecosystems, posing unprecedented challenges to oceanic environments. Leveraging our business and technological strengths, we actively explore aquaculture solutions that can improve the marine ecological environment, with the aim of achieving harmony between humanity and nature.

HDPE 水上養殖設施改善海洋生態環境

HDPE Aquaculture Facilities Improve Marine Ecological Environment



我們創新開發的 HDPE 海洋養殖網箱，選用綠色環保並能回收二次利用的高密度聚乙烯（HDPE）材質，具備高強度、高韌性等特點。這種海洋養殖網箱能夠抵禦極端惡劣天氣，適合深遠海養殖作業，能有效減少傳統養殖方式中因採用竹木浮桶養殖網箱損壞而產生的廢棄物、養殖的殘留物對自然環境的破壞。

We have innovatively developed marine aquaculture cages made from high-density polyethylene (HDPE), an eco-friendly and recyclable material known for its high strength and toughness. These cages can withstand extreme weather conditions and are well-suited for deep-sea aquaculture operations. The innovation can effectively reduce environmental damage caused by waste and residues from traditional aquaculture methods that use bamboo or wooden buoy cages, which are prone to damage.



HDPE 海洋養殖網箱
HDPE Marine Aquaculture Cage

應對氣候變化

Addressing Climate Change

近年來，隨著極端天氣事件頻發，全球氣候風險加劇，應對氣候變化已成為全球共識。中國聯塑作為管道行業領軍者，積極應對氣候變化帶來的風險與影響，建立氣候變化風險管理流程，展開氣候風險和機遇的識別與評估工作，輸出氣候評估熱力圖和矩陣，並制定應對氣候變化的行動策略，爭做行業內氣候變化管理的先行者。

In recent years, as extreme weather have become more frequent and global climate risks have intensified, addressing climate change has become a global consensus. As a leader in the piping industry, China Lesso actively tackles the risks and impacts brought by climate change. We have established a climate change risk management process, conducted identification and assessment of climate-related risks and opportunities, and developed climate assessment heatmaps and matrices. We have also formulated action strategies to address climate change, aiming to become a trailblazer in climate change management within the industry.

氣候風險管理

Managing Climate-related Risks

我們深刻意識到加強本集團的氣候韌性和應對氣候相關風險與機遇的迫切性和重要性，我們持續檢討和深化對全集團的氣候風險評估流程，以了解氣候變化對本集團的影響。我們基於聯交所《氣候信息披露指引》，結合本集團發展現狀，通過採用氣候相關財務信息披露工作組（TCFD）框架，確保以透明、系統、科學的方式加強本集團氣候風險相關信息披露。

We are keenly aware of the urgency and importance of enhancing the Group's climate resilience and addressing climate-related risks and opportunities. We continuously review and enhance our climate risk assessment processes of the Group to understand the impacts of climate change. In alignment with the *Guidance on Climate Disclosures* issued by the Stock Exchange of Hong Kong Limited and the development status of the Group, we have adopted the Task Force on Climate-related Financial Disclosures (TCFD) framework to ensure transparent, systematic, and scientific disclosure of climate risk-related information.



治理 Governance

我們已將氣候相關事宜納入董事會管理範疇，並由本集團總裁直接管理。依託我們的 ESG 管治架構，董事會在可持續發展委員會的支持下，每年審議氣候相關議題及氣候相關風險和機遇，把關減緩氣候風險的戰略決策。本集團可持續發展委員會及其下設的可持續發展辦公室負責氣候風險的識別及評估，並根據董事會決策制定落實氣候變化相關的政策、行動和績效目標，實時監控相關工作目標管理進度並定期向董事會匯報。此外，我們重視本集團管理層在應對氣候變化領域的能力建設，每年組織面向董事會、高級管理人員及各部門可持續發展相關人員的 ESG 及氣候變化專題培訓，促進管理人員掌握 ESG 及氣候變化相關知識與技能，提升管理層對氣候變化風險管理的認識。

Our climate-related matters have been incorporated into the governance scope of the Board, with direct oversight from the chief executive of the Group. Leveraging our ESG governance structure and supported by the Sustainable Development Committee, the Board reviews climate-related issues, risks, and opportunities on an annual basis to ensure the sound strategic decision-making needed for mitigating climate risks. The Sustainable Development Committee, along with its subordinate Sustainability Office, is responsible for identifying and assessing climate-related risks, developing and implementing policies, actions, and performance metrics related to climate change in accordance with Board decisions, and monitoring progress toward related targets while regularly reporting to the Board. In addition, we place great importance on enhancing the capabilities of the management team to address climate change. Each year, we organize specialized ESG and climate change training sessions for the Board, senior management, and sustainability-related personnel across various departments, so as to ensure that the management is well-equipped with the necessary knowledge and skills to effectively manage climate change-related risks.

氣候變化風險應對策略培訓 Training on Climate Change Risk Response Strategies

2024 年 2 月於中國聯塑氣候變化風險應對策略培訓會上，各部門就風險類型及影響因素、應對計劃、指標與目標等進行了深入交流，旨在進一步提升本集團對氣候變化的應對能力，推動綠色低碳發展。

In February 2024, during the training on climate change risk response strategies for China Lesso, various departments engaged in in-depth discussions regarding risk types, influencing factors, response plans, metrics, and targets. The training aimed to further enhance the Group's capacity to address climate change and promote green, low-carbon development.



氣候變化風險應對策略培訓現場 Climate Change Risk Response Strategies Training Session

戰略 Strategy

為全面提升氣候風險適應力和抓住氣候機遇，我們展開了詳細的氣候風險評估和情景分析，全面分析氣候變化對我們的運營和價值鏈可能於短期（2024-2025 年）、中期（2026-2030 年）及長期（2031-2050 年）造成的影響。為更具針對性地展開氣候風險評估，我們將上一年度的四種氣候情景融合成兩種具有高對比性的氣候情景，藉此更精準了解我們業務在未來可能出現的不同情況下的韌性及穩健程度。兩種情景均使用知名組織公開可用的情景所構建，這些組織包括聯合國政府間氣候變化專門委員會（IPCC）⁸ 及央行與監管機構綠色金融網絡（NGFS）⁹。

To comprehensively enhance climate risk resilience and seize climate-related opportunities, we have conducted a detailed climate risk assessment and scenario analysis to deeply examine the potential impacts of climate change on our operations and value chain over the short term (2024 – 2025), medium term (2026 – 2030), and long term (2031 – 2050). For a more targeted assessment, we consolidated the four climate scenarios from the previous year into two highly contrasting scenarios. This approach enabled us to more precisely evaluate the resilience and robustness of our business under various future conditions. Both scenarios were developed using publicly available frameworks from well-known organizations, including the Intergovernmental Panel on Climate Change (IPCC)⁸ and the Network of Central Banks and Supervisors for Greening the Financial System (NGFS)⁹.

2024 年分析採用的氣候情景描述 Description of the Climate Scenarios Used in Analysis of 2024

	綠色情景（1.5 – 2°C） Green Scenario (1.5 – 2°C)	棕色情景（3°C） Brown Scenario (3°C)
選擇理由 Rationale for Selection	選擇綠色情景，以評估為了實現《巴黎協定》1.5°C 目標而展開氣候行動的影響 The Green Scenario is selected to assess the impacts of climate actions taken to achieve the 1.5°C target under the <i>Paris Agreement</i>	選擇棕色情景，以評估在缺乏有效氣候行動的情況下，導致的氣候變化加劇的影響 The Brown Scenario is chosen to evaluate the impacts of exacerbated climate change in the absence of effective climate action
情景描述 Scenario Description	全球開始逐步採取步調一致的全球氣候行動，在 2100 年全球溫升控制在 2°C 以下 Nations gradually adopt coordinated global climate actions to keep the global temperature rise below 2°C by 2100	全球按照目前的氣候目標和計劃展開行動，在 2100 年全球溫升控制在 3°C 以下 Nations are working toward existing climate targets and plans and strive to keep the global temperature rise below 3°C by 2100

⁸ 共享社會經濟路徑（SSPs）是政府間氣候變化專門委員會（IPCC）構建的全球社會經濟發展情景。SSP1 -2.6、SSP2-4.5 對應的溫升幅度分別在 1.7°C、2.7°C 左右。

⁸ The Shared Socio-economic Pathways (SSPs) are scenarios of global socioeconomic development created by the Intergovernmental Panel on Climate Change (IPCC). SSP1-2.6 and SSP2-4.5 refer to two scenarios of socioeconomic development, corresponding to the temperature increases of around 1.7°C and 2.7°C , respectively.

⁹ 央行與監管機構綠色金融網絡發佈了一套六種情景，考慮了過渡風險、實體風險及氣候政策的實施。其中 Delayed Transition、Nationally Determined Contributions (NDCs) 分別對應 2°C 的無序路徑和 3°C 左右的溫室世界路徑。

⁹ The Network of Central Banks and Supervisors for Greening the Financial System (NGFS) issued a set of six different scenarios by considering transition and physical risks and the implementation of climate policies. Specifically, Delayed Transition and Nationally Determined Contributions (NDCs) correspond to the disorderly path of limiting global warming to within 2°C and the "hothouse earth" path of limiting global warming to within about 3°C , respectively.

	綠色情景（1.5 – 2℃） Green Scenario (1.5 – 2℃)	棕色情景（3℃） Brown Scenario (3℃)
情景描述 Scenario Description	● 經濟：低碳的生產和生活空間建設成為全球共識，並持續驅動經濟增長 Economy: Low-carbon production and living spaces construction become global consensus, driving sustained economic growth ● 技術：清潔能源、綠色建築、新型材料等多種突破性技術獲得投資和政策偏向，傳統技術出現提前退役，新能源價格在 2030 年前後出現明顯下降 Technology: Cutting-edge technologies in areas such as clean energy, green buildings, and new materials receive increased investment and policy support. Traditional technologies are phased out earlier than expected. The cost of new energy sources is anticipated to decline significantly around 2030 ● 市場：消費者和利益相關者的偏好朝著建立零排放循環經濟的方向發展，對於綠色建築相關產品需求和偏好增強，但集中於高層 / 商業體應用，需求增長有限 Market: Consumer and stakeholders show an increasing preference for zero-emission circular economy. Demand and preference for green building-related products grow, though primarily concentrated in high-rise and commercial buildings, resulting in limited overall demand growth	● 經濟：全球民族主義升溫導致全球合作有限、自由貿易逆轉，最終抑制經濟產出增長 Economy: A surge in nationalism worldwide hinders international cooperation and free trade, ultimately constraining economic output growth ● 技術：投資不足限制了綠色技術研發活動和新技術的商業化，但適應氣候變化災害相關的建築技術得到重視，例如雨水回收、反光材料等 Technology: Insufficient investments restrict R&D in green technologies and the commercialization of new technologies, though there is growing emphasis on building technologies that help adapt to climate-related disasters, such as rainwater harvesting and reflective materials ● 市場：消費者和行業受經濟選擇驅動，依賴傳統選擇，未出現明顯對於綠色建築 / 綠色產品的偏好 Market: Driven by economic factors, consumers and industries rely on traditional options, with no significant preference for green buildings or green products
主要參考參數 Key Reference Parameters	實體風險：SSP1-2.6 Physical Risk: SSP1-2.6 轉型風險：NGFS – Delayed Transition Transition Risk: NGFS – Delayed Transition	實體風險：SSP2-4.5 Physical Risk: SSP2-4.5 轉型風險：NGFS – Nationally Determined Contributions (NDCs) Transition Risk: NGFS – Nationally Determined Contributions (NDCs)

風險管理
Risk Management

2024 年，我們持續展開氣候風險評估工作，基於宏觀政策、行業政策及監管要求等外部趨勢，識別出對本集團業務有實質性影響的 4 項實體風險、7 項轉型風險及 4 項機遇。

In 2024, we continued to carry out climate risk assessments. Based on external trends such as macroeconomic policies, industry policies, and regulatory requirements, we identified 4 physical risks, 7 transition risks, and 4 opportunities that have a material impact on the Group's business.

2024 年氣候變化風險與機遇介紹
Risks and Opportunities Related to Climate Change in 2024

風險類型 Risk Type	風險名稱 Risk Name	風險介紹 Risk Description	時間尺度 Time Scale	
物理風險 Physical risk	急性風險 Acute risk	極端高溫 Extreme heat waves	世界氣象組織定義極熱為 35°C及以上溫度的天氣，具體表現為年內高溫天數增加、熱浪概率上升、暖流期持續指數增加。 The World Meteorological Organization (WMO) defines extreme heat as weather with temperatures of 35° C or above. This is characterized by an increase in the number of high-temperature days per year, a higher probability of heat waves, and a longer duration of warm periods.	長期 Long-term
		洪澇 Flooding	洪澇是指因大雨、暴雨或持續降雨使低窪地區淹沒、漬水的現象。洪澇威脅沿河、湖濱、近海地區的安全，甚至造成淹沒災害，具體表現為建築物 / 道路的排水設施及透水區難以有效地延緩徑流時間，從而造成嚴重內澇。 Flooding refers to the phenomenon where low-lying areas are inundated or waterlogged due to heavy rain, torrential rain, or continuous rainfall. Flooding poses a threat to the safety of regions along rivers, lakes, and coastal areas, and can even lead to submersion disasters. Specifically, this is characterized by the inability of drainage systems and permeable areas in buildings/roads to effectively delay runoff, resulting in severe waterlogging.	中期 Medium-term
		極端降雨 Extreme rainfall	極端降雨指的是氣候變化導致的降水模式改變或汛期的強降水，具體表現為年內強降雨天數增多、年內最大降雨量上升。 Extreme rainfall refers to changes in precipitation patterns or intense rainfall during flood seasons caused by climate change. This is characterized by an increase in the number of days with heavy rainfall per year and a rise in the maximum annual rainfall levels.	中期 Medium-term
		颱風及風暴潮 Typhoons and storm surges	颱風是一種風力極大的熱帶氣旋，將引發持續大風和傾盆大雨的天氣。當颱風移向陸地時，由於颱風的強風和低氣壓的作用，會使海水向海岸方向強力堆積，導致潮位猛漲，海平面異常升降，這種現象稱為風暴潮。 Typhoons are extremely powerful tropical cyclones that bring sustained strong winds and heavy rainfall. When a typhoon moves toward land, its strong winds and low pressure cause seawater to accumulate toward the coast, leading to a sudden rise in tide levels and abnormal fluctuations in sea level, a phenomenon known as a storm surge.	中期 Medium-term

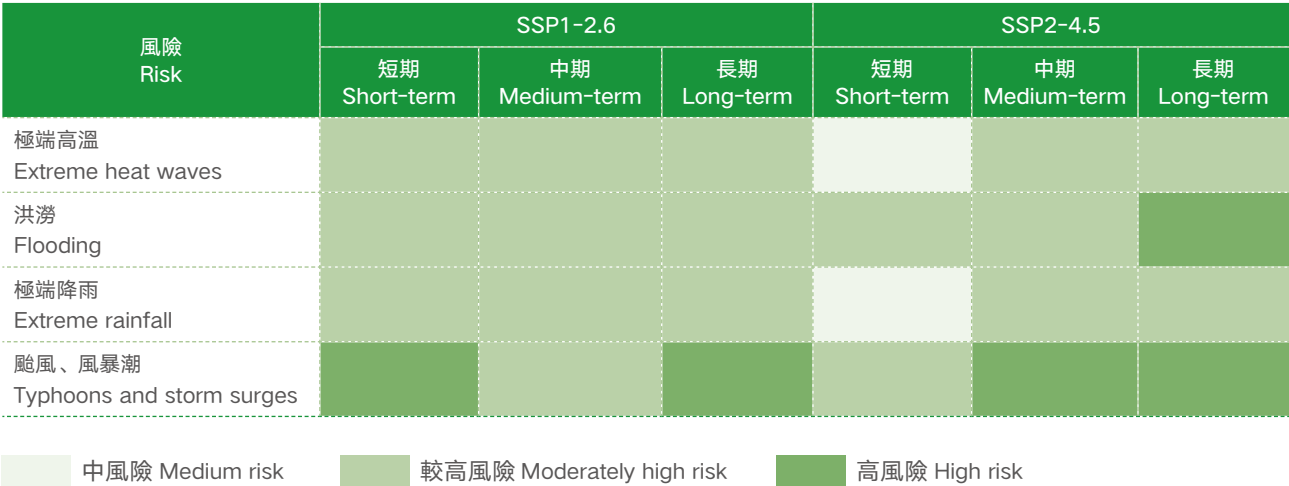
風險類型 Risk Type	風險名稱 Risk Name	風險介紹 Risk Description	時間尺度 Time Scale
轉型風險 Transition risk	政策及法規風險 Policy and regulatory risk	強化排放量披露義務 Strengthened obligations for emission disclosure	短期 Short-term
		提高溫室氣體排放定價 Increased pricing of greenhouse gas emissions	長期 Long-term
		加強現有產品和服務的要求及監管 Strengthened requirements and regulations for existing products and services	長期 Long-term
		推動能源綠色低碳轉型 Promotion of a low-carbon energy transition	長期 Long-term
	市場風險 Market risk	客戶行為變化 Changes in customer behavior	中期 Medium-term
		原料成本波動 Fluctuations in raw material costs	長期 Long-term

風險類型 Risk Type		風險名稱 Risk Name	風險介紹 Risk Description	時間尺度 Time Scale
轉型風險 Transition risk	聲譽風險 Reputational risk	利益相關方關注 Concern from stakeholders	越來越多的投資者採用責任投資原則等 ESG 投資準則，高度關注企業氣候變化行動。 An increasing number of investors are adopting ESG investment criteria, such as the Principles for Responsible Investment, and are highly concerned about corporate climate change actions.	中期 Medium-term
機遇 Opportunity	商品和服務 Products and services	開發和 / 或增加低碳商品和服務 Development and/or expansion of low-carbon products and services	在氣候風險的適應和應對中提供如清潔能源等具備節能、減排作用的產品，以及能夠提升地區應對氣候風險能力的產品。 It is essential to provide products that contribute to energy conservation and emission reduction, such as clean energy, as well as products that enhance regional resilience to climate risks, as part of climate risk adaptation and response efforts.	長期 Long-term
	資源效率 Resource efficiency	採用更高效率的運輸方式 Adoption of more efficient transportation methods	在運營中制定運輸結構和運輸效率的提升計劃，實施改善產品包裝、優化運輸結構、自動化管理等運輸優化方式，減少運輸過程中的能源消耗。 It is necessary to develop plans to improve transportation structure and efficiency in operations, implement transportation optimization measures such as improving product packaging, optimizing transportation structure, and automating management, as well as reduce energy consumption during transportation.	短期 Short-term
		回收再利用 Recycling and reuse	為減少資源消耗，越來越多的公司展開生產材料回收再利用工作，使用回收材料替代原材料，或是處理廢料使其重新投入生產流程，減少生產過程中對原材料的消耗。 To minimize resource consumption, an increasing number of companies are engaging in the recycling and reuse of production materials. They are also using recycled materials to replace raw materials, or processing waste to reintroduce it into the production process. This approach reduces the consumption of raw materials during production.	短期 Short-term
		減少用水量和耗水量 Reduction of water usage and consumption	公眾及政府越來越重視節水型社會建設，特別是在農業領域，改造節水灌溉區以滿足水資源的可持續利用。 The public and government are placing growing emphasis on building a water-saving society, especially in the agricultural sector, where water-saving irrigation areas are being renovated to support the sustainable use of water resources.	短期 Short-term

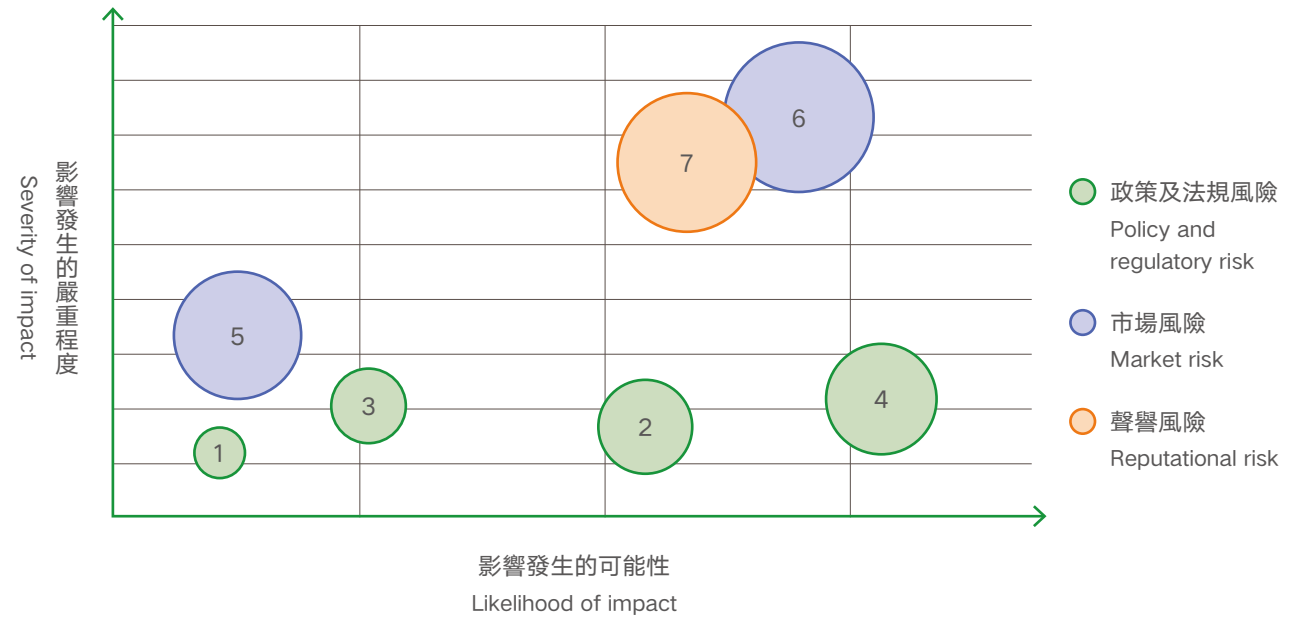
在實體風險評估中，我們依據不同情景、不同時期下實體風險的可能性及嚴重程度繪制氣候風險熱力圖。在轉型風險評估中，我們從影響發生的可能性、嚴重程度及影響發生時可能導致的影響範圍三個維度，評估我們的 7 大轉型風險表現，形成轉型風險評估矩陣。

During the physical risk assessment, we created a climate risk heatmap based on the likelihood and severity of physical risks under different scenarios and time periods. For the transition risk assessment, we evaluated the performance of the 7 transition risks from three dimensions: the likelihood of occurrence, the severity of the impact, and the scope of the impact when it occurs, thus forming a transition risk assessment matrix.

中國聯塑氣候實體風險熱力圖
China Lesso's Climate Physical Risk Heatmap



轉型風險評估矩陣¹⁰
Transition Risk Assessment Matrix¹⁰



¹⁰ 氣泡的大小表示風險的影響範圍，氣泡越大，該風險的影響發生時可能導致的影響範圍越大。
¹⁰ The size of the bubbles represents the scope of impact of the risks. A larger bubble implies the greater the potential scope of impact when the risk occurs.

氣候風險類型
Type of Climate-related Risks

對應序號 No.	風險類型 Risk Type	
1	政策及法規風險 Policy and regulatory risk	提高溫室氣體排放定價 Increased pricing of greenhouse gas emissions
2		強化排放量披露義務 Strengthened obligations for emission disclosure
3		加強現有產品和服務的要求及監管 More stringent requirements and supervision of existing products and services
4		推動能源綠色低碳轉型 Promotion of a low-carbon energy transition
5	市場風險 Market risk	客戶行為變化 Changes in customer behavior
6		原料成本波動 Fluctuations in raw material costs
7	聲譽風險 Reputational risk	利益相關方關注 Concern from stakeholders

基於氣候風險評估結果，我們充分認識到氣候相關風險及機遇為本集團運營帶來全新的挑戰，在一定程度上也會影響本集團的財務表現，為響應各利益相關方對氣候相關財務信息披露的需求，2024 年，我們結合氣候情景關鍵參數及業務展開實際情況，針對氣候相關風險及機遇對本集團財務的潛在影響展開評估。

Based on the results of the climate risk assessment, we have fully realized that climate-related risks and opportunities present new challenges to the Group's operations and, to some extent, impact our financial performance. In response to the demand from various stakeholders for climate-related financial information disclosure, we assessed potential financial impacts of climate-related risks and opportunities on the Group in 2024 by combining key climate scenario parameters and the actual conditions of our business operations.

2024 年氣候變化風險與機遇
Risks and Opportunities Related to Climate Change in 2024

風險類型 Risk Type	風險名稱 Risk Name	影響路徑 Influencing Path	財務影響說明 Description of Financial Impact	時間尺度 Time Scale
實體 風險 Physical risk	急性 風險 Acute risk	極端高溫 Extreme heat waves	中國聯塑主要運營地點之一，廣東省屬於極端高溫熱浪天氣的高度影響地區，預計年均持續時間將不斷增強，並且可能隨著大灣區城市化進程不斷加劇。在高溫天氣持續延長的背景下，本集團生產和運營所需的通風、製冷及空氣調節設備運行用電成本增加，存放於室外的產品可能因高溫暴曬受損。同時，由於高溫天氣延長，員工高溫補貼需求增加，與氣溫相關的疾病發病率預計將持續增加，導致人力成本提升。 Guangdong Province, one of China Lesso's primary operational locations, Guangdong Province, is highly susceptible to extreme heat waves. The average duration of these heat waves is expected to intensify annually and may be further exacerbated by the urbanization process in the Greater Bay Area. In this context of prolonged high temperatures, the electricity costs associated with running ventilation, cooling, and air conditioning equipment necessary for the Group's production and operations will increase. Products stored outdoors may also be damaged by prolonged exposure to intense heat. Furthermore, due to the extended periods of high temperatures, the need for employee heat allowances is expected to rise. The incidence of heat-related illnesses is projected to increase, further leading to higher labor costs.	長期 Long-term
		洪澇 Flooding	中國聯塑在中國境內的部分倉庫及生產基地位於洪澇易發生地區，洪澇會直接威脅倉庫及工廠廠區的安全，洪水可能淹沒倉庫，導致貨物被淹、變質或損壞，出現庫存損失。 Some of China Lesso's warehouses and production facilities within China are located in areas prone to flooding. Flooding directly threatens the safety of these warehouse and factory sites. Floodwaters may inundate warehouses, leading to inventory loss due to water damage, spoilage, or destruction of goods.	中期 Medium-term
	轉型 風險 Transition risk	強化排放量披露義務 Strengthened obligations for emission disclosure	● 採購成本：原材料受潮、受損，進而導致額外採購成本增加 Procurement costs: Increased raw material procurement costs due to moisture damage and loss ● 生產成本：運營中斷，造成額外勞動力成本增加 Production costs: Increased labor costs resulting from operational disruptions ● 固定資產：基礎設施折舊速度加快，造成資產貶值 Fixed assets: Accelerated depreciation of infrastructure, leading to asset devaluation	短期 Short-term

風險類型 Risk Type	風險名稱 Risk Name	影響路徑 Influencing Path	財務影響說明 Description of Financial Impact	時間尺度 Time Scale
實體 風險 Physical risk	急性 風險 Acute risk	極端降雨 Extreme rainfall	● 採購成本：額外採購沙袋、防水板等物資 Procurement costs: Increased procurement for supplies such as sandbags and flood barriers	中期 Medium-term
		颱風及風暴潮 Typhoons and storm surges	● 運營成本：車間房屋受損，設備維護成本增加 Operational costs: Increased equipment maintenance costs and facility damage ● 生產成本：運營中斷 Production costs: Disruptions to operations ● 採購成本：額外採購防颱風物資 Procurement costs: Increased procurement for emergency supplies	中期 Medium-term
	轉型 風險 Transition risk	政策及法規風險 Policy and regulatory risk	● 運營成本增加：為滿足監管合規要求，聘請外部顧問（包括 ESG 諮詢公司和外部法律顧問） Increased operational costs: Engage in external consultants (including ESG consulting firms and external legal counsel) to meet regulatory requirements	短期 Short-term

風險類型 Risk Type	風險名稱 Risk Name	影響路徑 Influencing Path	財務影響說明 Description of Financial Impact	時間尺度 Time Scale
轉型風險 Transi- tion risk	政策及法規風險 Policy and regu- latory risk	提高溫室氣體排放定價 Increased pricing of green-house gas emissions	本集團尚未納入中國碳市場管轄行業範圍，但考慮在中長期碳市場範圍可能進一步擴大，若排放超出限額的溫室氣體，將可能需要付出額外經營成本。 The Group has not yet been included in the industries regulated by China's carbon market. However, considering the potential expansion of the carbon market's scope in the medium to long term, it may incur additional operating costs if our greenhouse gas emissions exceed allocated allowances.	長期 Long-term
		加強現有產品和服務的要求及監管 More stringent requirements and supervision of existing products and services	管道在生產製造環節需產生大量碳排放，隨著政府或行業協會對產品能耗標準、行業碳強度要求愈加嚴格，本集團的管道業務未來可能面臨能耗限額控制。 The manufacturing process for pipes generates substantial carbon emissions. . As governments or industry associations impose increasingly stringent standards for product energy consumption and sector-specific carbon intensity, our piping business may face energy consumption quota restrictions in the future.	長期 Long-term
		推動能源綠色低碳轉型 Promotion of a low-carbon energy transition	政府或行業協會對行業碳強度要求愈加嚴格，促進能源結構轉型的體制、機制和政策體系不斷完善。本集團未來將面臨能源結構轉型壓力。 Governments and industry associations are imposing increasingly strict carbon intensity requirements, while the systems, mechanisms, and policy frameworks supporting energy transition are continuously being refined. As a result, the Group will face growing pressure to transform its energy structure in the future.	長期 Long-term
	市場風險 Market risk	客戶行為變化 Changes in customer behavior	越來越多的企業入局環保業務，企業在低碳產品、可持續農業等領域競爭壓力增大。越來越多客戶對氣候變化議題更為重視，低碳消費品可能會擠壓傳統消費品的市場份額。 An increasing number of companies are venturing into the environmental protection sector, intensifying competition in areas such as low-carbon products and sustainable agriculture. Furthermore, as more customers place a greater emphasis on climate change issues, low-carbon consumer goods may gradually encroach upon the market share of traditional consumer products.	中期 Medium-term

風險類型 Risk Type	風險名稱 Risk Name	影響路徑 Influencing Path	財務影響說明 Description of Financial Impact	時間尺度 Time Scale
轉型風險 Transi- tion risk	市場風險 Market risk	原料成本波動 Fluctuations in raw material costs	由於環保要求日漸嚴格，對原材料及能源的低碳轉型要求越來越高，供應商將環保成本轉嫁至下游，能源、原材料等成本因低碳轉型要求價格上漲（如電力、天然氣、蒸汽、PVC 粉等）。 Due to increasingly strict environmental requirements and growing demand for low-carbon raw materials and energy, suppliers are passing on environmental costs downstream, resulting in rising prices for inputs such as electricity, natural gas, steam, and PVC powder.	長期 Long-term
	聲譽風險 Reputational risk	利益相關方關注 Concern from stakeholders	與聲譽受損相關的財務影響會隨著客戶對企業氣候行動的期望增加，風險可能會隨著時間的推移而增加。隨著越來越多的投資者高度關注企業氣候變化行動，如本集團未能積極展開脫碳轉型，可能導致投資者低估企業價值。 The financial impacts associated with reputational damage may escalate as customer expectations for corporate climate action increase, and these risks could intensify over time. As more investors place a high priority on corporate climate initiatives, failure to actively pursue low-carbon transition efforts could lead to undervaluation of the Group.	中期 Medium-term
機遇 Oppor- tunity	商品和服務 Prod- ucts and ser- vices	開發和 / 或增加低碳商品和服務 Development and/or expansion of low-carbon products and services	中國聯塑部分低碳商品和服務未來可能會獲得政府或投資機構的支持，如高標準農田建設、光伏發電、環保產業等均獲得政府的支持。 In the future, some of China Lesso's low-carbon products and services may receive support from governments or investment institutions. For example, initiatives such as high-standard farmland construction, photovoltaic power generation, and environmental protection industries have already garnered government support.	長期 Long-term

風險類型 Risk Type	風險名稱 Risk Name	影響路徑 Influencing Path	財務影響說明 Description of Financial Impact	時間尺度 Time Scale
機遇 Opportunity	採用更高效率的運輸方式 Adoption of more efficient trans- portation methods	本集團在運營中致力於通過改善產品包裝、優化運輸結構、數字化信息化管理等運輸優化方式，提高產能和運營效率。 The Group is committed to enhancing production capacity and operational efficiency by adopting transportation optimization measures, including improved product packaging, optimized transportation structures, and digital information management.	● 運營成本：通過優化運輸結構，採用新能源車輛，本集團未來會顯著降低運輸過程中的能源消耗，進而降低運輸成本 Operating costs: The significant reduction in transportation energy consumption and associated cost savings achieved through optimized transportation structures and the adoption of new energy vehicles	短期 Short-term
	資源效率 Re-source efficiency	回收再利用 Recycling and reuse	● 採購成本：本集團積極展開資源回收利用工作，帶來包材採購成本降低 Procurement costs: The decrease in packaging material procurement expenses resulting from proactive resource recovery and recycling initiatives ● 營業收入：環保業務新增的業務量帶來營業收入增加 Operating revenue: The increase in operating revenue generated by the additional business volume from environmental protection business	短期 Short-term
	減少用水量和耗水量 Reduction of water usage and consumption	公眾及政府越來越重視節水型社會建設，未來或許可能會為中國聯塑農業管道業務帶來新的業務增長機會。 Growing public and governmental emphasis on water-saving initiatives may create new business growth opportunities for China Lesso's agricultural pipes in the future.	● 營業收入：中國「高標準農田建設」政策為農業管道業務帶來機遇，新增的業務量帶來營業收入增加 Operating revenue: The increase in operating revenue stemming from new business opportunities in the agricultural pipe sector under China's "High-standard Farmland Construction" policy	短期 Short-term

指標與目標
Metrics and Targets

為積極應對氣候對本集團運營的影響，我們已基於氣候風險與機遇分析結果，根據本集團及各業務部門的實際操作流程、現有資源和未來發展規劃，制定了一系列指標和目標，以監察我們的氣候應對成效。

To actively address the impact of climate on our operations, we have developed a series of metrics and targets based on the analysis results of climate-related risks and opportunities as well as the actual operational processes, existing resources, and future development plans of the Group and its business departments. These measures are designed to monitor the effectiveness of our climate response efforts.

指標與目標表格
Metrics and Targets

風險類型 Risk Type	風險名稱 Risk Name	行動內容 Action	指標名稱 Metric	目標 Target
實體 風險 Physical risk	急性 風險 Acute risk	極端高溫 Extreme heat waves	各車間工序自動化環節數量 Number of automated processes in each workshop	提升各車間工序自動化環節數量 Increasing the number of automated processes in each workshop
			通風、製冷等降溫設備覆蓋率 Coverage rate of ventilation, cooling, and other temperature-reducing equipment	提升高溫地區通風、製冷等降溫設備的覆蓋率 Increasing the coverage rate of ventilation, cooling, and other temperature-reducing equipment in high-temperature areas
			高溫津貼與福利價值 High-temperature allowances and benefits	以各地高溫天氣勞動保護法規為底線，持續提升高溫津貼與福利的標準 Continuously raising the standards of high-temperature allowances and benefits with the laws and regulations on labor protection under high temperature in various regions as the bottom line

風險類型 Risk Type	風險名稱 Risk Name	行動內容 Action	指標名稱 Metric	目標 Target
實體 風險 Phys- ical risk	急性 風險 Acute risk	洪澇、 極端降雨、 颱風、風 暴潮 Flooding, Extreme rainfall, Typhoons and storm surges	選擇高地勢、基礎設施完備的地點建立生產基地。拓寬供應渠道，以降低對單一供應商的依賴風險。完善極端天氣應急預案，儲備安全防護物料，統計颱風造成的資產損失以便保險理賠。定期展開應急演練，對員工進行極端天氣應急培訓，全面提升颱風及洪澇災害的應急防範能力。 We choose locations with high terrain and complete infrastructure to establish production bases. By broadening our supply channels, we aim to reduce the risks associated with relying on a single supplier. We improve emergency response plans for extreme weather, stockpile safety and protection materials, and assess asset losses caused by typhoons for insurance claims. We conduct regular emergency drills and provide employees with extreme weather emergency training, comprehensively enhancing our emergency response capabilities for typhoons and floods.	極端天氣應對處理率 Extreme weather response rate
			颱風、暴雨防護物料儲備完整度 Completeness of protective supplies for typhoons and heavy rain	極端天氣應對處理率達到 100% Achieving a 100% response rate to extreme weather events
			極端天氣應急培訓 / 演練頻率 Frequency of extreme weather emergency training/drills	100% 生產工作區域儲備防護物料 Equipping 100% of production areas with protective supplies
轉型 風險 Tran- sition risk	政策 及 法規 風險 Policy and regu- latory risk	強化排放 量披露 義務 Strength- ened obliga- tions for emission disclosure	溫室氣體範圍 1&2 GHG Scope 1&2	針對管道板塊：到 2025 年，單位產量範圍二溫室氣體排放強度較 2021 年（253.59 千克二氧化碳 / 噸）累計下降 3% For the piping sector: By 2025, the Scope 2 GHG emission intensity per unit of production will decrease by 3% compared with 2021 (253.59 kg CO ₂ /tonne)
			溫室氣體範圍 3 GHG Scope 3	範圍 3 數據範圍覆蓋至 15 個類別，完整覆蓋上下游價值鏈，設定範圍 3 排放目標 Expanding the Scope 3 data to 15 categories, fully covering the upstream and downstream sectors of the value chain, and setting Scope 3 emission targets
			能源管理系統覆蓋範圍 Coverage of energy management system	提升企業能源管理系統的覆蓋範圍 Increasing the coverage of the corporate energy management system
			碳管理培訓 Training on carbon management	每年展開 1-2 次碳管理培訓 1-2 carbon management trainings every year

風險類型 Risk Type	風險名稱 Risk Name	行動內容 Action	指標名稱 Metric	目標 Target
轉型 風險 Tran- sition risk	提高溫室 氣體排放 定價 Increased pricing of green- house gas emissions	為應對未來可能擴大的全國碳市場範圍及可能擴充至更多行業的碳邊境調整機制，本集團制定全面的碳管理制度，為各產線設定溫室氣體排放目標和績效要求，定期評估進展，並持續關注全球碳市場政策，確保本集團碳管理策略與全球趨勢保持一致，積極應對潛在的因超出排放限額所需支付的額外成本風險。 To address the potential expansion of the national carbon market and the possible extension of the Carbon Border Adjustment Mechanism (CBAM) to more industries, the Group has established a comprehensive carbon management system. We set greenhouse gas emission targets and performance requirements for each production line, regularly assess progress, and continuously monitor global carbon market policies. This ensures that our carbon management strategy remains aligned with global trends, enabling us to proactively respond to potential risks of additional costs due to exceeding emission limits.	碳管理制度完整性 Integrity of carbon management system	發佈《碳管理辦法》《碳管理監督及績效考核辦法》《碳信息披露辦法》以及《碳數據核算制度體系》 Releasing the <i>Carbon Management Measures</i> , the <i>Carbon Management Supervision and Performance Appraisal Measures</i> , the <i>Carbon Information Disclosure Measures</i> , and the <i>Carbon Data Accounting System</i>
			碳市場政策跟蹤 Tracking carbon market policies	每季度梳理 1 次國內外政策動態 Reviewing domestic and foreign policy developments once each quarter
	政策 及 法規 風險 Policy and regu- latory risk	加強現有 產品和服 務的要求 及監管 More stringent require- ments and su- pervision of exist- ing prod- ucts and ser- vices	能源消耗 Energy consumption	針對管道板塊：到 2025 年，單位產量總電耗強度較 2021 年上升幅度控制在 3% For the piping sector: By 2025, the increase in electricity consumption intensity per unit of production will be controlled below 3% compared with 2021
			產品碳足跡認證 Product carbon footprint certification	提高對現有產品碳足跡認證的力度 Strengthening the certification of carbon footprint for existing products
			金屬材料替換率 Metal material replacement rate	提高高碳金屬材料替代率 Increasing the replace rate of high-carbon metal materials

風險類型 Risk Type	風險名稱 Risk Name	行動內容 Action	指標名稱 Metric	目標 Target
轉型 風險 Transition risk	政策及 法規 風險 Policy and regulatory risk	推動能源綠色 低碳轉型 Promotion of a low-carbon energy transition 提高可再生能源的使用比例，完善能源管理系統，沉澱關鍵技術，加強綠色低碳投資，提升碳管理能力。 We increase the proportion of renewable energy usage, improve energy management systems, accumulate key technologies, increase low-carbon investments, and enhance carbon management capabilities.	光伏裝機容量 Photovoltaic (PV) installed capacity	光伏裝機容量保持增長，自有屋頂光伏應裝盡裝 Maintaining growth in PV installed capacity, and fully utilizing rooftop PV installations where possible
			新能源使用量及使用佔比 New energy consumption volume and proportion	新能源使用佔比保持增長 Continuously increasing the proportion of new energy usage
	市場 風險 Market risk	客戶行為 變化 Changes in customer behavior 與行業協會合作，推動綠色標準的制定和宣導性政策的編制。通過市場調研和客戶行為分析，持續關注綠色消費市場的動態和消費者需求，持續優化產品、服務，以滿足消費者的綠色消費需求，並積極開發環保產品，減少產品在全生命週期中的碳排放。 We collaborate with industry associations to promote the development of green standards and advocacy policies. Through market research and consumer behavior analysis, we continuously monitor the dynamics of the green consumption market and consumer demands, and constantly optimize our products and services to meet the green consumption needs of consumers. We also actively develop eco-friendly products and reduce carbon emissions throughout the product lifecycle.	客戶綠色消費需求 Customers' needs for green consumption	提升客戶綠色消費需求洞察力 Enhancing insights into customers' needs for green consumption
		原料成本 波動 Fluctuations in raw material costs 定期展開市場行情分析以預測材料價格，合理定價避免高採購成本。價格波動時，採用分批和按需採購策略，減輕價格波動影響。 We regularly conduct market analysis to forecast material prices and set reasonable prices to avoid high procurement costs. When prices fluctuate, we adopt batch and on-demand procurement strategies to mitigate the impact of price volatility.	原材料價格跟蹤 Raw material price tracking	每季度整理對於關鍵原材料的市場行情分析，對市場供需、價格變化進行預測預警 Conducting quarterly market analysis for key raw materials, providing forecasts and early warnings on market supply and demand trends and price fluctuations
	聲譽 風險 Reputational risk	利益相關方 關注 Concern from stakeholders 積極展開投資者交流活動，就 ESG 問題與投資人展開系統性溝通（如現場走訪等），主動回應投資者 ESG/ 氣候變化相關資訊問詢。 We actively conduct investor communication activities, engage in discussions with investors on ESG issues (including on-site visits), and proactively respond to investor inquiries regarding ESG/climate change-related information.	投資者溝通 Investor communication	每季度主動針對 ESG/ 氣候變化相關事宜與投資者展開溝通 Proactively communicating with investors each quarter on ESG and climate change matters

風險類型 Risk Type	風險名稱 Risk Name	行動內容 Action	指標名稱 Metric	目標 Target
機遇 Opportunity	商品和服務 Products and services	開發和 / 或增加低碳商品和服務 Development and/or expansion of low-carbon products and services 積極開發綠色農業、輸氫管道、核電輸電管等產品，以迎合低碳經濟的政策趨勢和市場需求，向政府或投資機構申請開發低碳商品的資金支持。對有潛在環境污染風險的化學品及原材料進行替換、配方調整等。 We actively develop products such as green agriculture, hydrogen transmission pipes, and nuclear power transmission pipes to cater to the policy trends and market demands of a low-carbon economy. We also apply for funding support from governments or investment institutions to develop low-carbon products. Moreover, we implement substitutions and formula adjustments for chemicals and raw materials that pose potential environmental pollution risks.	產品研發投入總額 Total investment in product R&D	增加對低碳相關產品的技術研發投入及佔比 Increasing investment in low-carbon related product technology R&D and proportion of R&D expenditure
	資源效率 Resource efficiency	採用更高效率的運輸方式 Adoption of more efficient transportation methods	電動化運輸工具比例 Proportion of electrified transport vehicles	提升室內電動化運輸工具比例 Increasing the proportion of electric transport vehicles used indoors
			貨運管理平台覆蓋面 Coverage of freight management platform	貨運管理平台覆蓋全集團物流數據 Ensuring the freight management platform covers all logistics data of the Group
		引入電動運輸工具如電動叉車、電動托盤車等，實施車間自動化改造，優化物料進倉入庫流程。建立網絡貨運平台，統一管理全集團物流運輸數據，實現運輸高效管理。 We introduce electric transportation tools such as electric forklifts and electric pallet trucks, implement workshop automation transformations, and optimize material warehousing and storage processes. We establish a network freight platform to manage the Group's logistics and transportation data in a unified manner and achieve efficient transportation management.	物流運輸使用新能源車比例 Share of new energy vehicles used in logistics	短途貨運（300km 以內）優先選用新能源車運輸 Prioritizing the use of new energy vehicles for short-haul freight (within 300 km)

風險類型 Risk Type	風險名稱 Risk Name	行動內容 Action	指標名稱 Metric	目標 Target
機遇 Op- por- tunity	回收再利用 Recycling and reuse	優化結構和工藝設計，拓寬再生料的使用範圍，建立產品回收和以舊換新機制。持續發展廢酸、鋁泥、鋁灰等資源化處置業務，在生產過程中安裝餘熱回收裝置，提高熱回收效率。 We optimize structural and process designs, expand the application range of recycled materials, and establish product recycling and trade-in mechanisms. We continuously develop recycling business segments such as waste acid, aluminum mud, and aluminum ash recycling, and install waste heat recovery devices in production processes to improve heat recovery efficiency.	塑料不合格品回收利用率 Recovery and reuse rate of nonconforming plastic products	塑料不合格品的回收利用率達98% The recycling rate of non-conforming plastic products reaches 98%
			再生料覆蓋範圍 Scope of recycled materials usage	擴大再生料的使用範圍，提高各產品線中再生料的使用比例 Expanding the application scope of recycled materials and increasing the proportion of recycled materials in each product line
			餘熱回收裝置覆蓋率 Coverage rate of waste heat recovery systems	增加餘熱回收裝置，提升裝置覆蓋率 Adding waste heat recovery devices and increasing their coverage rate
			無害廢棄物產生量 Volume of non-hazardous waste generated	針對管道板塊，到 2025 年，無害廢棄物單位產量產生量控制在 1.0 噸 / 噸以下 For the piping sector: By 2025, the non-hazardous waste generated per unit of production is controlled below 1.0 tonne/tonne
	資源效率 Re- source effi- ciency		有害廢棄物產生量 Volume of hazardous waste generated	針對管道板塊，到 2025 年，有害廢棄物單位產量產生量控制在 1.1 千克 / 噸以下 For the piping sector: By 2025, the hazardous waste generated per unit of production is controlled below 1.1 kg/tonne
			循環用水總量 Total volume of recycled water	生產環節循環用水量達到 0.5-1 噸 / 噸 The recycled water consumption during production reaches 0.5-1 tonne/tonne.
			耗水量 Water consumption	針對管道板塊：到 2025 年，單位產量總耗水強度控制在 1.60 噸 / 噸以下 For the piping sector: By 2025, the water consumption intensity per unit of production is controlled below 1.60 tonne/tonne
			節水宣傳活動展開頻次 Frequency of water-saving activities	每年至少展開一場關於節約用水的相關活動 Carrying out the relevant water-saving activities at least once a year
	減少用水量 和耗水量 Reduction of water usage and consump- tion	實施雨污分流，安裝循環水利用系統和處理設施，包括冷卻水塔、濾水系統等，以減少工業用水浪費。推行綠色辦公，設置節水標誌，舉辦節水宣傳活動。積極響應中國高標準農田建設政策，配合開發及推廣農業灌溉管道方面的產品。 We implement rainwater and sewage diversion, and install circulating water utilization systems and treatment facilities, including cooling water towers and water filtration systems, to reduce industrial water waste. We promote green office, set up water-saving signs, and organize water-saving promotional activities. We actively respond to the national policy of high-standard farmland construction and cooperate in the development and promotion of agricultural irrigation pipe products.		

節能降碳行動

Energy Conservation and Carbon Reduction Actions

為積極響應全球氣候行動以及中國「雙碳」目標，落實本集團自身氣候變化相關戰略，助力科學管控能源消耗量及溫室氣體排放量，我們以應對氣候變化為契機，通過健全能源管理體系、展開節能減排行動等舉措，系統推進節能降耗，踐行清潔生產。

We actively respond to global climate actions and China's "dual carbon" goals by implementing the Group's climate change-related strategies and scientifically controlling energy consumption and greenhouse gas emissions. We also seize the opportunity of addressing climate change by improving our energy management system, implementing energy conservation and emission reduction measures, and practicing clean production.

完善能源管理體系

Improving the Energy Management System

我們根據能源管理體系（ISO 50001:2018）要求編制《能源管理手冊》，該手冊中包含《目標和指標及管理方案控制程序》《能源評審控制程序》《能源基準及績效參數制定控制程序》和《記錄控制程序》等全流程管理控制文件，為有效實施本集團能源管理體系提供制度規範。為使能源管理體系能夠持續有效運行，2024 年，我們展開能源評審工作，通過現場調查、資料核查以及必要的測試，分析企業能源利用自查報告，確認能源利用水平，並通過評審查找存在的弱點，為完善能源管理體系建設提供能源利用狀況依據，不斷優化本集團的用能管理。

We have prepared the *Energy Management Manual* in accordance with the requirements of the Energy Management System (ISO 50001:2018). This manual contains full-process management control documents such as the *Targets, Indicators, and Management Plan Control Procedures*, the *Energy Review Control Procedures*, the *Energy Baseline and Performance Parameters Establishment Control Procedures*, and the *Record Control Procedures*, thus providing an institutional framework for the effective implementation of the Group's energy management system. To ensure sustained effectiveness of our energy management system, we conducted energy audits in 2024. Through on-site investigations, data verification, and necessary testing, we analyzed self-assessment reports on energy utilization, confirmed energy utilization levels, and identified weaknesses through audits. These efforts will provide a basis for strengthening our energy management system and continuously optimizing the Group's energy use management.

此外，我們成立董事會為最高決策機構、碳管理領導小組為管理機構，碳管理執行小組為執行機構「決策－管理－執行」三級碳管理架構，編制亦適用於管理本集團管道板塊子公司的《碳管理辦法》《碳管理監督及績效考核辦法》《碳數據核算制度體系》和《碳信息披露辦法》等四項內部制度，明確各單位職責與權限，強化對碳排放目標及路徑實現的宣導及推行。2024 年，我們展開多場能源管理相關培訓，旨在提升員工能源管理意識。

In addition, we have established a three-tier carbon management structure consisting of the Board as the highest decision-making body, the Carbon Management Leadership Team as the management body, and the Carbon Management Executive Team as the execution body. We have also developed four internal systems, namely the *Carbon Management Measures*, the *Carbon Management Supervision and Performance Appraisal Measures*, the *Carbon Data Accounting System*, and the *Carbon Information Disclosure Measures*, which apply to the management of the Group's piping subsidiaries. These systems clearly define the responsibilities and authorities of each unit, thus strengthening the promotion and implementation of carbon emission targets and pathways. In 2024, we conducted multiple energy management training sessions to enhance employees' awareness of energy management.

中國聯塑展開能源管理培訓 China Lesso Conducts Energy Management Training



2024 年 6 月，我們舉辦「能源發展現狀及展望——聯塑的挑戰與機遇」培訓，系統性解讀能源發展現狀、中國「雙碳」政策以及本集團當前面臨的挑戰和機遇。此次培訓指出，本集團未來可以智慧能源系統為抓手，加強對能源 KPI 的追蹤和管理，並加速推進綠色智能製造和低碳產品及服務的部署戰略，為實現高質量發展奠定良好基礎。

In June 2024, we organized a training session themed "Current Status and Outlook of Energy Development - Challenges and Opportunities for China Lesso". The training provided a systematic interpretation of the current energy development status, China's "dual carbon" policies, and the challenges and opportunities facing the Group. As proposed in the training, the Group will focus on smart energy systems to enhance tracking and management of energy-related KPIs, accelerate the deployment of green and smart manufacturing, and facilitate the delivery of low-carbon products and services. This training will lay a solid foundation for high-quality development.



「能源發展現狀及展望——聯塑的挑戰與機遇」培訓現場
Training Session on "Current Status and Outlook of Energy Development - Challenges and Opportunities for China Lesso"

加強節能減排 Enhancing Energy Conservation and Emission Reduction

我們遵循《中華人民共和國節約能源法》等法律法規要求，持續推進生產車間節能改造。一方面，我們通過採用先進的節能技術和設備，優化生產工藝與流程，有效降低了生產過程中的能耗，提高了能源利用效率。另一方面，我們積極展開碳排放權交易，充分利用市場機制促進碳減排。2024 年，武漢聯塑積極參與湖北省的碳排放交易體系（ETS），通過優化自身的碳排放管理，成功實現了 4,645 tCO₂ 碳配額的盈餘，並將多餘的碳配額進行出售，獲得約 20 萬元人民幣的經濟效益，有效促進了碳資源的優化配置。

In accordance with the *Law of the People's Republic of China on Conserving Energy* and other laws and regulations, we are continuously advancing energy-saving renovations in our production workshops. We have adopted advanced energy-saving technologies and equipment, optimized production processes and workflows, effectively reduced energy consumption during production, and improved energy utilization efficiency. Moreover, we actively participate in carbon emission rights trading and fully leverage market mechanisms to promote carbon emission reductions. In 2024, Wuhan Lesso actively participated in Carbon Emission Trading System (ETS) of Hubei Province. Through optimized carbon emissions management, we successfully achieved a surplus of 4,645 tCO₂ in carbon quotas. We also sold the excess quotas, which generated economic benefits of approximately RMB 200,000, and effectively promoted the optimal allocation of carbon resources.

四川聯塑展開節能真空泵組改造 Sichuan Lesso Implements Energy-Saving Vacuum Pump System Upgrade



2024 年，四川聯塑對 PVC 主機抽濕真空泵組、PPR 真空供料系統真空泵組、配件供料系統真空泵組進行節能改造，將原有恆頻真空泵組替換為變頻真空泵組，通過合理的管路設計，不同機台之間實現真空互補，在降低能耗的同時，減少了噪音和維修問題，改造後的真空泵組總電能節約率達 40%-50%，有效實現節能降耗。

In 2024, Sichuan Lesso conducted energy-saving upgrades on the vacuum pump systems for PVC host dehumidification, PPR vacuum feeding, and accessory feeding. The original constant-frequency vacuum pumps were replaced with variable-frequency vacuum pumps. Through optimized piping design, vacuum complementarity was achieved between different machines, reducing energy consumption while addressing noise and maintenance issues. The upgrades reduced energy consumption by 40% to 50%, effectively realizing energy saving and consumption reduction.



四川聯塑展開 PVC 主機抽濕羅茨真空泵組節能改造
Energy-Saving Upgrade of PVC Host Dehumidification
Luoci Vacuum Pump System at Sichuan Lesso

廣東聯塑部分車間混料工藝實現高效節能 Guangdong Lesso Achieves High-efficiency Energy Saving in Mixing Processes in Some Workshops



廣東聯塑部分車間採用高效節能混料工藝，利用冷混機的缸體容量設計為熱混機的 2 倍的特點，將相關材料（包括 PVC 樹脂粉、輕鈣、配方）放大至原來的 2 倍進行配比，使冷混過程無需再通製冷水進行冷卻，有效降低了能耗。經數據驗證，高效節能混料工藝在給水管車間全面實施後，節能效率達到 36% 以上，顯著減少了能源浪費，為企業節能減排提供了實際可行的路徑。

Guangdong Lesso implemented a high-efficiency, energy-saving mixing process in some of its workshops. By leveraging the design advantage of cold-mixing machines with cylinder capacities twice that of hot-mixing machines, the company scaled up material ratios (including PVC resin powder, light calcium, and formulations) to double the original amount. This eliminated the need for chilled water cooling during the cold-mixing process, significantly reducing energy consumption. After full implementation in the water supply pipe workshop, relevant data shows the energy-saving efficiency exceeded 36%, substantially cutting energy waste and providing a feasible pathway for the company's energy conservation and emission reduction goals.



給水管車間實現高效節能
High-efficiency Energy Saving Achieved in the Water
Supply Pipe Workshop

擠出成型中央控制節能系統投入運行
Centralized Energy-Saving Control System for Extrusion Molding in Operation

廣東聯塑部分車間擠出成型中央控制節能系統項目全面投入運行，節能效率達到 80%，每條生產線年節省電費約 2 萬元，該項目年節省可達 73 萬元。

The centralized energy-saving control system for extrusion molding has been fully implemented in some workshops of Guangdong Lesso, achieving an energy efficiency rate of 80%. This project saves approximately RMB 20,000 in electricity costs per production line annually, with total annual savings reaching RMB 730,000.



擠出成型中央控制節能系統投入運行
Centralized Energy-Saving Control System for Extrusion Molding in Operation

2022-2024 年光伏發電量及節約電費

Photovoltaic Power Generation and Electricity Cost Savings from 2022 to 2024

年份 Year	光伏發電量 / 萬千瓦時 PV Power Generation (10,000 kWh)	光伏消納電量 / 萬千瓦時 PV Power Consumption (10,000 kWh)	節省電費效益 / 千元 Electricity Cost Savings (RMB 1,000)	相當於節約標準煤 / 噸 Equivalent to Standard Coal Saved (Tonne)
2022	2,733	2,585	3,421	3,176
2023	3,567	3,225	4,268	3,963
2024	5,655	4,170	39,896	5,124

備註：2024 年節約電費效益由光伏消納電量的電費效益與餘電上網收益組成，2022 年和 2023 年節省電費效益僅考慮光伏消納電量的電費效益。

Notes: The electricity cost savings in 2024 consists of the electricity cost benefit of the PV power consumption and revenue from PV surplus electricity fed into the grid, while the electricity cost savings in 2022 and 2023 only considers the electricity cost benefit of the PV power consumption.

2022-2024 年能源消耗量

Energy Consumption from 2022 to 2024

年份 Year	電能 / 萬千瓦時 Electricity (10,000 kWh)	柴油 / 噸 Diesel (Tonne)	汽油 / 噸 Gasoline (Tonne)	天然氣 / 萬立方米 Natural Gas (10,000 m³)	潤滑油 / 噸 Lubricating Oil (Tonne)
2022	118,582.94	2,809.19	948.42	300.84	82.14
2023	138,886.08	3,775.86	3,098.24	557.06	82.15
2024	135,884.28	3,813.43	3,749.44	542.77	98.83

2022-2024 年溫室氣體排放量及 2024 年溫室氣體排放密度

GHG Emissions from 2022 to 2024 and Emission Intensity in 2024

年份 Year	直接排放量（範疇一）/tCO ₂ e Direct Emissions (Scope 1) / tCO ₂ e	間接排放量（範疇二）/tCO ₂ e Indirect Emissions (Scope 2) / tCO ₂ e	合計（範疇一 + 範疇二）/ tCO ₂ e Total Emissions (Scope 1 & 2) / tCO ₂ e
2022	18,228.11	677,205.31	695,433.42
2023	33,346.78	790,663.20	824,009.98
2024	35,267.11	731,135.74	766,402.85
2024 年溫室氣體排放密度 (tCO ₂ e/ 百萬人民幣營收) GHG Emission Intensity in 2024 (tCO ₂ e/RMB 1 million of operating revenue)	1.30	27.05	28.36

按業務板塊劃分的 2024 年溫室氣體排放量比例

Proportion of GHG Emissions by Business Segment in 2024

業務板塊 Business Segment	範圍一排放量佔比 / % Proportion of Scope 1 Emissions (%)	範圍二排放量佔比 / % Proportion of Scope 2 Emissions (%)
管道產業 Piping industry	61.17%	94.77%
建材家居 Building materials and home improvement	24.02%	1.94%
環保產業 Environmental protection industry	11.88%	1.29%
其他（供應鏈服務平台、新能源等） Others (supply chain services, new energy, etc.)	2.93%	2.00%

2024 年範疇三溫室氣體排放量

Scope 3 GHG Emissions in 2024

範疇三類別 Categories of Scope 3		溫室氣體排放量 /tCO ₂ e GHG Emissions (tCO ₂ e)
類別 1 Category 1	外購商品與服務 Purchased goods and services	47,363.44
類別 5 Category 5	運營中產生的廢棄物 Waste generated in operations	79,737.27
類別 7 Category 7	員工通勤 Employee commuting	10,825.37
類別 11 Category 11	售出產品的使用 Use of sold products	1,491,610.45 ¹¹

¹¹ 2024 年，因領尚淨水產品銷量大幅增長，導致範圍三：類別 11 售出產品的使用數據較 2023 年相比呈上升趨勢。

¹¹ In 2024, there was a significant increase in the sales of Lesso water purification products, which resulted in an upward trend in Scope 3: Category 11 Use of products compared to 2023.

數據計算參考標準
Reference Standards for Data Calculation

- 汽油、柴油產生的直接溫室氣體排放參考聯交所發佈的《環境關鍵績效指標匯報指引》計算；天然氣產生的直接溫室氣體排放參考國家發展改革委辦公廳發佈的《工業其他行業企業溫室氣體排放核算方法與報告指南（實行）》計算。

Direct greenhouse gas emissions from gasoline and diesel are calculated using the *Reporting Guidance on Environmental KPIs* issued by the Stock Exchange. Direct greenhouse gas emissions from natural gas are calculated using the *Guidelines for Accounting and Reporting of Greenhouse Gas Emissions from Enterprises in Other Sectors of the Industry (for Trial Implementation)* issued by the National Development and Reform Commission.
- 外購電力及外購熱力產生的間接溫室氣體排放參考聯交所發佈的《環境關鍵績效指標匯報指引》計算，電力排放因子參考國家生態環境部《關於做好 2023—2025 年發電行業企業溫室氣體排放報告管理有關工作的通知》中規定的 2022 年度全國平均排放因子。

Indirect greenhouse gas emissions from the purchased electricity and heat are calculated according to the *Reporting Guidance on Environmental KPIs* issued by the Stock Exchange. For the emission factors of electricity, we refer to the average emission factors nationwide in 2022, stipulated in the *Notice on Properly Managing the Reporting of Greenhouse Gas Emissions by Power Generation Enterprises from 2023 to 2025*, issued by the Ministry of Ecology and Environment of the People's Republic of China.
- 汽油、柴油、天然氣等能源消耗量參考聯交所發佈的《環境關鍵績效指標匯報指引》計算。

The consumption of energy sources such as gasoline, diesel, natural gas, etc., is calculated according to the *Reporting Guidance on Environmental KPIs* issued by the Stock Exchange.

關鍵績效 KPIs



2024 年
In 2024

- 能源總耗量 **1,626,721.86** 兆瓦時
Total energy consumption: **1,626,721.86** MWh
- 能耗密度 **60.19** 兆瓦時 / 百萬人民幣營收
Energy consumption intensity: **60.19** MWh/ RMB 1 million of operating revenue

發展循環經濟
Developing Circular Economy

中國聯塑順應全球循環經濟發展趨勢，對水資源及包裝材料進行精細化管理，致力於構建適用於中國聯塑的循環經濟模式。

In alignment with the global trend of circular economy development, China Lesso implements precise management of water resources and packaging materials, and strives to build a circular economy model tailored to its operations.

水資源管理
Management of Water Resources

我們持續採用封閉循環水冷卻水利用系統，配置冷卻水塔為生產過程中的冷卻用水補充蒸發水分，對冷卻水塔揮發損耗展開熱能回收，從工業生產用水到冷卻水池實現管道全封閉模式，減少生產使用過程的用水浪費。我們在各生產車間展開節水改造，從源頭減少水資源消耗，減少生產過程中的水資源使用。我們亦注重向公眾傳遞節水理念，致力於通過品牌影響力，讓更多人意識到守護水資源的重要性。

We consistently employ closed-loop water cooling systems equipped with cooling towers to replenish evaporated water during the production process. We recover heat from the evaporative losses of the cooling towers and implement a fully enclosed pipeline system from industrial water use to the cooling water pool to reduce water waste during the production process. We have carried out water-saving renovations in various production workshops to minimize water resource consumption at the source and reduce water usage during production. We also emphasize promoting the water-saving concept to the public, aiming to raise awareness about the importance of protecting water resources through our brand influence.

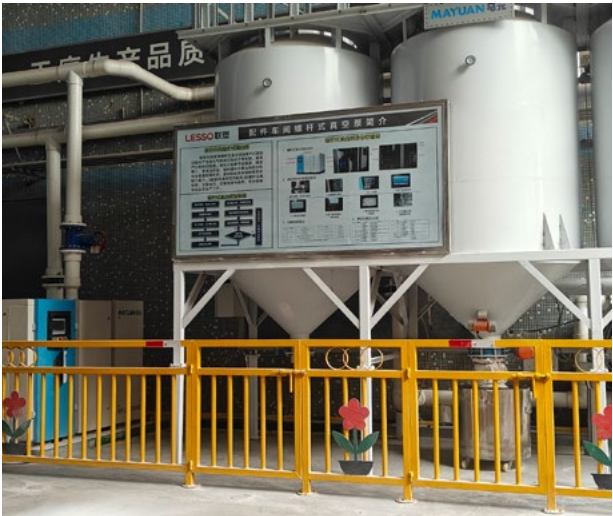


技術改造升級，減少水資源使用
Technological Upgrades to Reduce Water Usage



我們針對部分車間進行技改升級，重點針對真空系統進行了更新。改造後的真空系統使用變頻螺桿真空泵，摒棄了傳統的以循環水作為工作介質的方式，而是採用抽真空的工作原理來實現高效運作。此次改造從源頭上完全杜絕了對水資源的浪費及可能產生的污染，體現了我們在追求綠色發展、保護環境方面的實際行動。

We carried out technological renovations targeting some workshops, especially the upgrade of vacuum systems. The upgraded vacuum systems feature variable-frequency screw vacuum pumps, eliminating the traditional method of using circulating water as the working medium. Instead, they operate efficiently through a vacuum extraction mechanism. This upgrade completely prevents water waste and potential pollution at the source, demonstrating our commitment to green development and environmental protection through concrete actions.



於車間進行真空系統改造
Vacuum System Upgrade in the Workshop

中國聯塑發起「生命之源守護計劃」主題活動
China Lesso Launches the "Protecting the Source of Life" Campaign



在世界環境日到來之際，我們攜手社會各界，在某社交平台發起邀請並呼籲全網加入「生命之源守護計劃」主題活動，感受水生態守護的力量。此次活動受到網友們的熱烈響應，我們以守護生命之源為內核，聚焦管網安全、生態可持續發展，對家庭、工業、農業、海洋等領域的節水知識作出科普，加深了公眾對水資源保護重要性的認知。

On the occasion of World Environment Day, we joined hands with various sectors of society to launch the "Protecting the Source of Life" campaign on a popular social media platform, to experience the power of water ecology conservation. The event garnered enthusiastic support from netizens. With the core mission of protecting the source of life, we focused on sharing water-saving knowledge in areas such as households, industry, agriculture, and marine sectors to promote pipe network safety and sustainable ecological development. This campaign deepened public awareness of the importance of water resource conservation.



「生命之源守護計劃」主題活動頁面
"Protecting the Source of Life" Campaign Page

關鍵績效 KPIs



2024 年
In 2024

- 耗水量 **454.58** 萬噸（2023 年：438.08 萬噸）；耗水量密度 **168** 噸 / 百萬人民幣營收（2023 年：140 噸 / 百萬人民幣營收）
4.5458 million tonnes of water consumed (2023: 4.3808 million tonnes); intensity: 168 tonnes/RMB 1 million of operating revenue (2023: 140 tonnes/RMB 1 million of operating revenue)
- 循環利用水資源 **526.43** 萬噸（2023 年：574.16 萬噸）
5.2643 million tonnes of water resources recycled (2023: 5.7416 million tonnes)

包材減量化
Reduction of Packaging Materials

我們致力於持續推進包材減量化與輕量化工作，積極探索實踐各種方案，以減輕廢棄包裝對環境的負面影響。自 2024 年 11 月起，除客戶有特殊包裝要求外，我們取消海外管材直管產品的包裝，有效減少了包裝材料的浪費。針對國內部分管材，我們取消套裝帶，使用裸管標識貼紙以節省耗材。同時，我們積極研發液收縮膜等新材料，測試熱收縮膜效用，並且同步進行包材回收再利用，力求有效提升包裝製品回收性能，從源頭上實現包裝減量，降低資源消耗對環境的負擔。

We are committed to advancing the reduction and lightweight adoption of packaging materials. We also actively explore and implement various solutions to mitigate the environmental impact of discarded packaging. Since November 2024, except for cases where customers have special packaging requirements, we have eliminated the packaging for overseas straight pipe products to effectively reduce packaging material waste. For some domestically-made pipes, we have replaced bundled straps with bare pipe labels using adhesive stickers to conserve resources. Meanwhile, we are actively developing new materials such as liquid shrink films, testing the efficacy of thermal shrink film, and promoting the reuse of packaging materials. Our goal is to enhance the recyclability of packaging products, achieve packaging reduction at the source, and lessen the environmental burden of resource consumption.

關鍵績效 KPIs



2024 年
In 2024

- 包裝材料使用量 **33,855.24** 噸（2023 年：37,653.57 噸）；包裝材料密度 **1.25** 噸 / 百萬人民幣營收（2023 年：1.22 噸 / 百萬人民幣營收）
33,855.24 tonnes of packaging materials used (2023: 37,653.57 tonnes); intensity: 1.25 tonnes/RMB 1 million of operating revenue (2023: 1.22 tonnes/RMB 1 million of operating revenue)

04戮力同心 堅守人本理念

Jointly Building A People-oriented Workplace

中國聯塑秉承「以人為本」之核心價值觀，始終將員工看作是企業最珍貴的夥伴，致力於打造一個安全並充滿活力、包容多元的工作環境，為員工提供完善的培育機制和平等的發展機會，讓每位員工都能在相互尊重的氣氛中充分發揮個人潛力、實現自我價值，與企業共同成長。

Upholding the core value of "people-oriented", we consistently regard employees as our most treasured partners. We also strive to create a safe, dynamic, inclusive, and diversified workplace that provides employees with well-developed training mechanisms and equal development opportunities. The atmosphere of mutual respect enables every employee to unlock their full potential, realize personal value, and grow together with China Lesso.

回應 SDGs
Response to SDGs



重要性議題 Material Issues	核心策略 Core Strategies
多元化、平等與合規僱傭 Employment diversity, equality and compliance	- 保障員工的基本權益，傾聽員工心聲 Protecting employees' basic rights and interests, and listening to their voices - 建立完善招聘、晉升制度，為不同性別、年齡、國籍、宗教信仰等背景的求職者提供平等機會，營造尊重、包容的職場氣氛 Establishing well-developed recruitment and promotion systems, providing equal opportunities for applicants from diverse backgrounds (gender, age, nationality, religion, etc.), and fostering a respectful and inclusive workplace
員工薪酬與福利 Employee remuneration and benefits	- 建立完善薪酬考核機制，提供具有競爭力的薪酬待遇 Implementing a sound remuneration and performance assessment mechanism, and offering competitive salaries and benefits - 建立全方位的保險制度體系 Adopting a comprehensive insurance system
職業健康與安全 Occupational health and safety	- 制定完善的職業健康安全管理體系，實踐安全檢查及演練培訓等多項管理政策，保障員工安全 Developing a sound occupational health and safety management system, and implementing safety inspections, drills, training, and other management policies to ensure employee safety - 定期展開工作場所檢測及職業病體檢，關愛員工身心健康 Regularly conducting workplace inspections and occupational health examinations, and caring for employees' physical and mental health
員工培訓與發展 Employee training and development	- 提升員工工作技能，完善內部培訓體系，支持員工自我成長 Enhancing employees' work skills, improving the internal training system, and supporting employee self-development - 建立明確的員工發展道路 Providing clear career development pathways for employees
員工關愛與扶助 Employee care and support	- 展開員工滿意度調查，聽取員工建議 Conducting employee satisfaction surveys and listening to employees' suggestions - 提供多種關懷措施，提升員工滿意度 Taking a variety of employee care measures to enhance employee satisfaction

關鍵績效 KPIs

2024 年
In 2024

- 員工培訓總時間 **329,053** 小時，開發培訓課程 **49** 門
The total training time for employees is **329,053** hours, with **49** training courses developed
- 社會保險覆蓋率 **100%**
The social insurance coverage rate is **100%**



維護員工權益

Safeguarding the Rights and Interests of Employees

中國聯塑不斷完善招聘錄用、薪酬管理、職業發展等勞工制度，注重維護員工權益，確保「選、用、育、留」各個環節合乎法律規範，提供合規的薪酬與福利，營造健康、和諧、充滿活力和創造力的職場氣氛。

China Lesso continuously refines its labor systems including recruitment, compensation management, and career development, while prioritizing the protection of employees' rights and interests. We ensure that the processes of selection, employment, training, and retention comply with relevant laws and regulations. In addition, we provide appropriate remuneration and benefits, aiming to cultivate a healthy, harmonious, dynamic, and creative workplace.

合規僱傭

Compliant Employment

我們嚴格遵守《中華人民共和國勞動法》《中華人民共和國勞動合同法》《勞動者權益保障法》等法律法規，制定《招聘錄用制度》《勞動關係管理辦法》等內部制度，保障員工的基本權益。

We strictly abide by laws and regulations such as the *Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China*, and the *Law of the People's Republic of China on the Protection of the Rights and Interests of Workers*. We have formulated internal policies such as the *Recruitment and Employment System* and the *Management Measures for Labor Relations* to protect employees' basic rights and interests.

禁止僱傭童工：我們嚴格遵守國際勞工組織《關於工作中的基本原則和權利宣言》、聯合國《世界人權宣言》等國際公認勞工準則及《中華人民共和國未成年人保護法》《禁止使用童工規定》（國務院令第 364 號）等有關規定，在《招聘錄用制度》中增加適用於全體集團員工的《人權聲明》¹²，明確要求本集團下屬所有用人單位均不得招聘童工（未滿 16 歲人士），並通過在招聘階段對應聘人員進行身份核查等方式避免使用童工。

Prohibition of child labor: We strictly adhere to internationally recognized standards such as the International Labor Organization's *Declaration on Fundamental Principles and Rights at Work* and the United Nations' *Universal Declaration of Human Rights*, as well as domestic regulations including the *Law of the People's Republic of China on the Protection of Minors* and the *Provisions on Prohibition of Child Labor Decree* (No. 364 of the State Council of the People's Republic of China). We have added a *Human Rights Statement*¹², applicable to all employees of the Group, to the *Recruitment and Employment System*, explicitly requiring that all subordinate units of the Group must not use child labor (minors under the age of 16). Moreover, we implement measures such as verifying the identity of candidates during the recruitment process to prevent the use of child labor.

禁止強制勞動：我們在制度上規定本集團下屬所有用人單位依法禁止強制勞動行為。如發現違規勞動情況，員工可通過人力資源熱線等方式向工會、人力資源部投訴，我們會遵守內部規定，依據《中華人民共和國刑法》等有關法律，將相關材料移送國家機關處理，並對直接責任人進行處罰。2024 年，本集團及供應鏈中均未發生歧視、童工、強制勞工等不合規勞動事件。

¹² 《人權聲明》：Human_Rights_Statement.pdf。

¹² *Human Rights Statement*: Human_Rights_Statement.pdf.

Prohibition of forced labor: Institutionally, we explicitly prohibit all subordinate units of the Group from engaging in forced labor, as required by relevant laws and regulations. If any violations are identified, employees can report them to the labor union or the Human Resources Department through channels such as the HR hotline. In accordance with our internal policies and by laws such as the *Criminal Law of the People's Republic of China*, we will submit relevant information to state authorities for their action and penalize those directly responsible. In 2024, no incidents of non-compliant employment practices, including discrimination, child labor, or forced labor, occurred within the Group or its supply chain.

確保僱傭公平：我們發佈了《關於包容多元化背景人才和尊重員工結社自由的聲明》，明確表示本集團歡迎不同年齡、宗教信仰、國籍、婚姻狀態、種族、膚色、民族、殘疾狀況、性取向及性別認同等背景的人才，保證僱傭決策過程公平公正，消除可能存在的歧視或偏見。

Ensuring fair employment: We have issued the *Statement on Embracing Talent from Diverse Backgrounds and Respecting Employees' Freedom of Association*. This statement clearly articulates the Group's commitment to welcoming talent from diverse backgrounds, including age, religion, nationality, marital status, race, skin color, ethnicity, disability, sexual orientation, and gender identity. We guarantee fair and impartial employment decisions, and eliminate potential discrimination and bias.

關鍵績效 KPIs

- 2024 年，勞動合同簽訂率為 **100%**
Employment contracts signing rate in 2024: **100%**
- 2022 至 2024 年，本集團未發生大規模裁員
The Group did not experience any major layoffs from 2022 to 2024



榮譽獎項 Honors



中國聯塑獲 Moka 中國出海企業最佳僱主品牌
China Lesso Awarded "Best Employer Brand for Chinese Enterprises Going Global" by Moka



中國聯塑獲廣東財經大學畢業生最佳僱主
China Lesso Awarded "Best Employer for Graduates" by Guangdong University of Finance and Economics



中國聯塑獲華南（順德）智慧家居產教融合發展聯盟特別貢獻獎
China Lesso Honored with "Special Contribution Award" by the South China (Shunde) Smart Home Industry-Education Integrated Development Alliance



中國聯塑獲智聯中國年度最佳僱主 - 佛山最佳僱主
China Lesso Awarded "Best Employer of the Year - Foshan Best Employer" by Zhaopin

平等共融 Equality and Inclusion

我們嚴格遵守《中華人民共和國勞動法》以及各業務運營地的勞工政策，制定《勞動關係管理辦法》及《員工手冊》，並發佈《關於杜絕歧視行為和性騷擾行為的聲明》《關於包容多元化背景人才和尊重員工結社自由的聲明》及《人權聲明》，主張包容多元化人才，堅持同工同酬，杜絕歧視行為和工作場所的騷擾行為。我們持續完善內部人權相關制度，並展開內部的自查與整改，由專門部門負責檢查人權相關制度的落實情況，督促各公司按照制度及時進行政策更新。我們已為人權相關內部舉報提供相應渠道，接收員工意見。此外，本集團明確支持員工自由結社與集體談判的權利。截至 2024 年底，本集團工會人數 13,706 人，佔本集團員工總數的 67.28%（2023 年：38.02%）。

We strictly comply with the *Labor Law of the People's Republic of China* and the labor policies of the locations where we operate. We have formulated the *Management Measures for Labor Relations* and the *Employees Manual*, and issued the *Statement on Eliminating Discrimination and Sexual Harassment*, the *Statement on Embracing Talent from Diverse Backgrounds and Respecting Employees' Freedom of Association*, and the *Human Rights Statement*. We advocate for the inclusion of diverse talent, uphold equal pay for equal work, and prohibit discrimination and workplace harassment. Furthermore, We continuously improve internal human rights-related systems and conduct self-inspections and rectifications. We have designated departments to oversee the implementation of human rights-related systems and urged relevant companies to update their policies in a timely manner in accordance with the regulations. We have also provided channels for internal human rights-related reporting to welcome employee feedback. Furthermore, the Group explicitly supports employees' rights to freedom of association and collective bargaining. As of the end of 2024, the number of labor union members in the Group reached 13,706, accounting for 67.28% of the total workforce (2023: 38.02%).

展開國際人才多元化專題培訓行動 Specialized Training on International Talent Diversity



2024 年，我們為國際人才提供《海外安全管理與跨文化團隊管理》《跨文化溝通》等多元化相關的專題培訓課程，內容涵蓋跨文化團隊管理的價值要義和方法、海外差旅安全管理的關鍵要點、海外差旅常見安全風險剖析與防範策略等重要模塊，充分提升了員工對於平等、尊重和包容的認識，提升了員工的跨文化溝通及協作能力，有效建構了一個更加多元、包容的工作環境。



國際人才多元化專題培訓
International Talent Diversity Training Session

In 2024, we provided international talent with specialized training courses on diversity, including the *Overseas Safety Management and Cross-Cultural Team Management* and the *Cross-Cultural Communication*. The training covered essential modules such as the core principles and methods of cross-cultural team management, key aspects of overseas travel safety management, and the analysis and prevention strategies for common safety risks during overseas travel. These initiatives significantly enhanced employees' awareness of equality, respect, and inclusion, improved their cross-cultural communication and collaboration skills, and effectively fostered a more diverse and inclusive workplace.

2024 年職工代表大會成功召開 2024 Employee Representative Conference Successfully Held



2024 年 8 月，我們成功召開職工代表大會，參會的職工代表共 211 人。大會向全體職工代表詳細匯報了人事管理制度更新情況、2024 年職工滿意度調研結果及反饋、「百千萬」人才培養工程及人才盤點工作、集團全球業務佈局以及海外業務拓展工作等內容。各職工代表就聽取和審議的方案進行舉手表決，讓員工充分行使權利，為企業發展繼續提出更多合理化意見和建議。

In August 2024, we successfully held the Employee Representatives Conference, attended by a total of 211 representatives. The conference provided a detailed report to all representatives on updates to the human resources management system, the results and feedback from the employee satisfaction survey in 2024, the "Hundred-Thousand-Ten Thousand" talent cultivation program and talent inventory, the Group's global business layout, and overseas business expansion. Employee representatives voted by a show of hands on the proposals presented and reviewed. This approach ensures that all employees fully exercise their rights and continue offering constructive opinions and suggestions for corporate development.



2024 年職工代表大會
2024 Employee Representative Conference

關鍵績效 KPIs

2024 年
In 2024

- 廣東聯塑舉辦了 **8** 場針對非歧視和反騷擾相關內容的培訓，合共 **203** 人次參與，培訓總時長 **446.4** 小時
In 2024, Guangdong Lesso conducted **8** training sessions on non-discrimination and anti-harassment, with a total of **203** enrollments and **446.4** training hours
- 廣東聯塑接受人權培訓員工數 **8,172** 人，培訓總時長 **13,428** 小時
The number of Guangdong Lesso's employees receiving human rights training was **8,172**, with a total of **13,428** training hours



2024 年本集團員工構成 Employee Composition of the Group in 2024			
員工類別 Employee Category		員工人數（人） Number of Employees (Persons)	員工比率（%） Employee Ratio (%)
員工總人數 Total number of employees		20,371	
按性別劃分 By gender	男性 Male	14,250	69.95
	女性 Female	6,121	30.05
按僱傭類型劃分 By employment type	全職 Full-time	20,368	99.99
	兼職 Part-time	3	0.01
按年齡劃分 By age	30 歲及以下 30 or below	4,591	22.54
	31-50 歲 31-50	14,006	68.75
	51 歲及以上 51 or above	1,774	8.71
按學歷結構劃分 By educational background	高中及以下 High school or below	12,411	60.92
	大專 Junior college	4,544	22.31
	本科 Undergraduate	3,168	15.55
	碩士及以上 Postgraduate or above	248	1.22
按職級劃分 By rank	高層管理女性 Senior management (Female)	30	0.15
	高層管理男性 Senior management (Male)	175	0.86
	中層管理女性 Middle management (Female)	157	0.77
	中層管理男性 Middle management (Male)	729	3.58
	基層管理女性 Junior management (Female)	317	1.56
	基層管理男性 Junior management (Male)	676	3.32
	普通女性員工 Ordinary employees (Female)	5,617	27.57
	普通男性員工 Ordinary employees (Male)	12,670	62.19

2024 年本集團員工構成 Employee Composition of the Group in 2024			
員工類別 Employee Category		員工人數（人） Number of Employees (Persons)	員工比率（%） Employee Ratio (%)
按職位劃分 By position	高層行政人員 Senior executives	201	0.99
	技術人員 Technical staff	3,210	15.76
	行政管理人員 Administrative staff	4,238	20.80
	生產人員 Production staff	12,722	62.45
按地區劃分 By region	華南 South China	8,530	41.87
	華中 Central China	4,613	22.64
	華北 North China	567	2.78
	華東 East China	1,389	6.82
	西北 Northwest China	959	4.71
	西南 Southwest China	2,409	11.83
	東北 Northeast China	497	2.44
	中國港澳台 China's Hong Kong SAR, Macao SAR, and Taiwan	35	0.17
海外 Overseas		1,372	6.74
科研員工數量 R&D workforce			
員工類別 Employee Category		員工人數（人） Number of Employees (Persons)	員工比率（%） Employee Ratio (%)
科研人員總數 Total number of R&D staff		1,714	8.41
男性科研人員 R&D staff (Male)		1,257	6.17
女性科研人員 R&D staff (Female)		457	2.24
博士及以上學歷科研人 R&D staff with PhD or above		10	0.05
博士以下學歷科研人員 R&D staff with PhD or below		1,704	8.36

2024 年本集團流失員工構成 Composition of Employee Turnover in 2024		
員工流失總數（人） Total number of employee turnover (Persons)		7,236
員工流失比率 Employee turnover rate		26.96%
自願離職率 Voluntary employee turnover rate		24.22%
員工類別 Employee Category		員工流失比率（%） ¹³ Employee Turnover Rate (%) ¹³
按性別劃分 By gender	男性 Male	28.28
	女性 Female	23.77
按年齡劃分 By age	30 歲及以下 30 or below	36.21
	31-50 歲 31-50	23.09
	51 歲及以上 51 or above	19.97
按職級劃分 By rank	高層管理 Senior management	7.76
	中層管理 Middle management	18.15
	基層管理 Junior management	14.33
	普通員工 Ordinary employees	28.02
按職位劃分 By position	高層行政人員 Senior executives	7.83
	技術人員 Technical staff	22.43
	行政管理人員 Administrative staff	23.61
	生產人員 Production staff	29.03
按地區劃分 By region	華南 South China	23.34
	華中 Central China	28.63
	華北 North China	23.40
	華東 East China	32.84
	西北 Northwest China	27.40
	西南 Southwest China	27.43
	東北 Northeast China	28.32
	中國港澳台 China's Hong Kong SAR, Macao SAR, and Taiwan	7.89
	海外 Overseas	35.42

¹³ 員工流失比率 = 當年流失員工人數 / （年初在職員工數 + 當年新增員工數）。
¹³ Employee turnover rate=Number of employee lost during the year / (number of employee at the beginning of the year + number of new employee during the year).

薪酬福利 Remuneration and Benefits

我們嚴格遵守《中華人民共和國勞動法》及地方社會保障機制，制定了《薪酬管理制度》《績效考核制度》等適用於本集團所有員工的內部政策，為員工提供合理並有市場競爭力的薪資福利。

We strictly comply with the *Labor Law of the People's Republic of China* and local social security mechanisms. We have also developed internal policies such as the *Compensation Management System* and the *Performance Appraisal System*, which apply to all employees within the Group. These policies aim to provide employees with reasonable and competitive remuneration and benefits.

薪酬激勵 Compensation and Incentives

我們實施短期、長期績效激勵措施，按照經營主體的中短期規劃為員工（包括高層以下的員工）提供可變薪酬。我們根據員工的職級分別設置了月度、季度、年度的考核週期，並每季度展開一次績效評估及激勵措施，從工作業績、工作表現、學習進步及違規違紀等多個方面評定員工績效，針對項目訂製獎勵方案，制定合理的薪酬水平和動態激勵機制，評估結果同時為員工的薪資調整、任免晉升、評優評先及培訓發展方面提供資料支持，有效提升了員工積極性與工作效率。

We adopt short-term and long-term performance incentive measures, and provide variable compensation for employees (including those below the senior management) in accordance with the medium-term and short-term plans of the business entity. Based on job levels, we conduct performance appraisal on a monthly, quarterly, or annual basis, and also carry out performance assessments and incentive measures on a quarterly basis. Employee performance is evaluated from multiple dimensions, including work performance, conduct, professional development, and compliance. Reward programs are designed for specific projects, supported by a dynamic compensation structure and incentive mechanism. Assessment results also inform salary adjustments, promotions, recognition, and training opportunities, effectively enhancing employee motivation and productivity.

另外，我們將能源利用效率、原材料廢棄率等關鍵指標納入到了本集團子公司總經理及車間主任的績效評估框架內，旨在明確節能減排、優化工作場所安全等方面的目標指標，鼓勵管理者嚴格實行 ESG 管理，並提升其監管所負責範圍 ESG 事宜的參與度與積極性。

Moreover, we have incorporated key indicators such as energy utilization efficiency and raw material waste rates into the performance assessment framework for general managers of our subsidiaries and directors of workshops. This initiative aims to establish clear targets for areas such as energy conservation, emissions reduction, and optimized workplace safety. Through these efforts, we incentivize management to rigorously implement ESG practices and enhance their engagement and motivation in overseeing ESG matters within their areas of responsibility.

員工福利
Employee Benefits

我們與保險公司合作，為員工提供價格更低、保障範圍更全面的商業保險，涵蓋醫療、養老、生育、失業、工傷等方面。此外，我們在本年度繼續展開「有福」員工福利計劃，為員工提供員工專屬合作商家購物優惠等福利項目。

We collaborate with insurance companies to offer employees commercial insurance plans with lower premiums and broader coverage, including medical care, retirement, maternity, unemployment, and work-related injuries. In 2024, we continued to implement the employee welfare plan, "Benefits for All", which feature various employee benefits such as exclusive shopping discounts at partner merchants.

關鍵績效 KPIs



2024 年
In 2024

- 為員工發放獎勵及補貼共計 **1.89** 億元
Total bonuses and subsidies distributed to employees: RMB **189** million
- 獲得獎勵或補貼的員工數量為 **22,205** 人
Number of employees receiving bonuses or subsidies: **22,205**

陝西聯塑引入積分制管理，調動員工積極性
Shaanxi Lesso Boosts Employee Engagement Through a Points-Based Incentive System



陝西聯塑科技實業有限公司引入積分制管理，激勵員工主動參與公司事務，提升團隊凝聚力。該機制鼓勵員工主動承擔廠區清潔等工作，以積分形式記錄貢獻，並舉辦快樂會議對貢獻較高員工進行頒獎。在積分制的激勵下，員工主動清理掉落物料、協助其他部門工作，收到了明顯成效。

Shaanxi Lesso Technology Industrial Co., Ltd. implemented a points-based management system to motivate employees to proactively engage in corporate matters and strengthen team cohesion. The mechanism encourages employees to voluntarily take on tasks such as factory area cleaning, with contributions recorded via a points system. A "Happy Meeting" is held to award prizes to employees with higher contributions. This mechanism has delivered tangible results, including employees proactively clearing fallen materials and assisting other departments.



陝西聯塑科技實業有限公司快樂會議頒發獎勵
"Happy Meeting" Award Ceremony at Shaanxi Lesso Technology Industrial Co., Ltd.



湖南聯塑快樂會議員工表演節目
"Happy Meeting" Employee Performance at Hunan Lesso

生產製造中心優秀標兵評選
Model Worker Selection at Production and Manufacturing Center



為培養員工良好的習慣，營造一個整潔、舒適的工作環境，生產製造中心每年展開三次優秀標兵評選活動，對參與評選的班組長或員工在出勤、工傷事故情況、機器設備損壞情況等方面進行考量，最終獲得標兵稱號的員工可以獲得 200 元的獎勵，以此倡導文明的生產風氣，維持車間清潔環境，保障生產安全。2024 年，我們共向 353 名員工頒發獎勵，獎勵資金共約 6 萬元。

The Production and Manufacturing Center conducts a model selection activity three times a year, with the aim to cultivate good habits among employees and create a clean, comfortable workplace. The evaluation criteria involves factors such as attendance, work-related injury incidents, and equipment damage. Employees awarded the "Model Worker" title will receive a cash reward of RMB 200. This initiative aims to promote a civilized production atmosphere, maintain a clean workshop environment, and ensure production safety. In 2024, we awarded 353 employees, with a total reward fund of approximately RMB 60,000.



標兵評選有效維護車間的整潔水平
Role Model Selection Effectively Maintains Workshop Cleanliness

助力員工發展

Empowering Employee Development

建設人才隊伍

Building Talent Teams

為保障人才隊伍的建設，我們制定了《招聘錄用制度》及《人才庫建設與管理辦法》，通過網絡招聘平台、校園招聘、內部招聘、內部競聘、內推、獵頭、勞務市場等多種方式展開 2024 年的招聘工作，完成了「千百十」招聘計劃¹⁴、「百日行動」招聘計劃¹⁵、秋招專項招聘行動等工作。同時，我們還完成了海外招聘工作，新增倉儲、銷售等崗位，招募外派人才，不僅豐富了本集團的人才結構，也為本集團的國際化發展注入了新的活力。

To build a robust talent pipeline, we have formulated the *Recruitment and Employment System* and the *Management Measures for Talent Pool Construction*. In 2024, we conducted recruitment through various channels, including online platforms, campus recruitment, internal recruitment, internal competitions, employee referrals, headhunters, and labor markets. We also executed initiatives such as the "Thousand-Hundred-Ten"¹⁴ recruitment plan, the "100-Day Action"¹⁵ plan, and the autumn recruitment plan. In addition, we organized various overseas recruitment activities for new positions such as warehousing and sales. These efforts not only enriched the Group's talent structure but also injected new vitality into our international development.

2024 年，本集團共參加 12 場春季校園招聘會，43 場秋季校園招聘會，安排中山大學、廣東財經大學、佛山大學等高校老師同學到本集團參觀交流「企業開放日」共 16 次，同步溝通簽訂校企合作協定共 22 所院校。

In 2024, the Group participated in 12 spring campus recruitment fairs and 43 autumn campus recruitment fairs. We arranged 16 "Open Day" activities for faculty and students from universities such as Sun Yat-sen University, Guangdong University of Finance and Economics, and Foshan University. Meanwhile, we signed school-enterprise cooperation agreements with 22 universities.

¹⁴ 「千百十」招聘計劃：本集團招聘應屆生 1,000 人以上，三年新增校企合作院校 200 所，各部門實習生任職佔正式員工大約 10%。

¹⁴ "Thousand-Hundred-Ten" recruitment plan: The Group aims to employ over 1,000 fresh graduates, add 200 colleges or universities for school-enterprise cooperation over three years, and ensure that interns account for approximately 10% of regular employees in each department.

¹⁵ 「百日行動」招聘計劃：將一年為三個 100 日，每個 100 日作為一個階段推進招聘工作，第一階段完成全年招聘計劃的 80%，第二階段完成招聘機制建設，第三階段完善年度工作計劃。

¹⁵ "100-Day Action" plan: The year is divided into three 100-day phases to systematically advance recruitment efforts. In the first phase, 80% of the annual recruitment plan is completed. In the second phase, the recruitment mechanism is established. In the third phase, the annual work plan is finalized.

關鍵績效 KPIs

- 2024 年，本集團招聘用人計劃為 **6,950** 人，已完成招聘 **6,464** 人，招聘完成率為 **93%**
In 2024, the Group set a recruitment target of **6,950** employees and hired **6,464** employees, with a completion rate of **93%**



截至 2024 年底，「千百十」計劃進展：
The progress of the "Thousand-Hundred-Ten" plan as of the end of 2024:

- 千（本集團招聘應屆生 **1,000** 人以上）：累計招聘應屆生 **1,142** 人
"Thousand" (recruiting over **1,000** fresh graduates annually): A total of **1,142** fresh graduates had been employed
- 百（本集團三年新增校企合作院校 **200** 所）：累計合作院校 **204** 所
"Hundred" (adding **200** colleges or universities for school-enterprise cooperation over three years): A total of **204** colleges or universities had been added for school-enterprise cooperation
- 十（本集團各部門實習生任職佔正式員工大約 **10%**）：錄用實習生部門比例為 **80%**
"Ten" (ensuring that interns account for approximately **10%** of regular employees in each department): Currently, the proportion of departments with interns recruited was **80%**

關鍵績效 KPIs

新增員工構成 Composition of New Employee Hires			
新增員工總數（人） Total number of new employee hires (Persons)		6,464	
內部轉崗比例（%） Percentage of open positions filled by internal candidates (%)		28	
員工類別 Employee Category		員工人數（人） Number of Employees (Persons)	員工比率（%） Employee Ratio (%)
按性別劃分 By gender	男性 Male	4,856	75.12
	女性 Female	1,608	24.88
按年齡劃分 By age	30 歲及以下 30 or below	3,373	52.18
	31-50 歲 31-50	3,021	46.74
	51 歲及以上 51 or above	70	1.08
按職級劃分 By rank	高層管理 Senior management	12	0.19
	中層管理 Middle management	126	1.95
	基層管理 Junior management	126	1.95
	普通員工 Ordinary employees	6,200	95.91

新增員工構成 Composition of New Employee Hires			
員工類別 Employee Category		員工人數（人） Number of Employees (Persons)	員工比率（%） Employee Ratio (%)
按職位劃分 By position	高層行政人員 Senior executives	13	0.20
	技術人員 Technical staff	762	11.79
	行政管理人員 Administrative staff	1,615	24.98
	生產人員 Production staff	4,074	63.03
按地區劃分 By region	華南 South China	2,054	31.77
	華中 Central China	1,322	20.45
	華北 North China	148	2.29
	華東 East China	497	7.69
	西北 Northwest China	371	5.74
	西南 Southwest China	730	11.29
	東北 Northeast China	193	2.99
	中國港澳台 China's Hong Kong SAR, Macao SAR, and Taiwan	5	0.08
海外 Overseas		1,144	17.70

打造「聯塑直播間」和招聘視頻號，拓展人才招聘渠道
Launching "Lesso Live-streaming Room" and WeChat Channels account to Diversify Talent Recruitment Channels



我們持續探索人才招聘新渠道，本年度通過直播及多種網絡平台進行推廣引流等方式高質量完成年度招聘工作。2024 年，我們正式啟動「聯塑直播間」，並於 4 月份在中國聯塑招聘視頻號展開以海外崗位講解和招聘為主要內容的直播招聘活動，引發求職者高度關注，成功拓寬招聘渠道，為本集團充實高質素人才。

To continuously innovate in talent recruitment, we successfully completed our annual recruitment work for the year 2024 through new channels such as live-streaming rooms and various online platforms. Besides launching the "Lesso Live-streaming Room" in 2024, we also hosted a live recruitment event focusing on overseas job explanations and recruitment via our WeChat Channels account for recruitment in April. This event focused on explaining overseas job opportunities, thus attracting wide attention from job seekers. These efforts have further diversified our recruitment channels and enriched our talent pool with high-caliber candidates.



「聯塑直播間」現場
"Lesso Live-streaming Room" in Action

「校企交流」吸引青年人才
"School-Enterprise Exchange" Attracts Young Talent



我們與各高校保持密切的聯繫與合作，積極吸引青年人才。2024 年 10 月，我們與廣東財經大學進行校企合作簽約儀式，獲得學校授予的「畢業生最佳僱主」的稱號。2024 年 11 月，我們舉辦了「企業開放日」，接待了來自廣東財經大學、佛山大學等學校共 20 名師生，帶領同學對本集團進行參觀並向同學們介紹了中國聯塑的發展情況。並由用人部門與同學進行面試交流，擇優錄取 7 名優秀的學生作為海外業務的儲備人員。此外，我們每年對接中山大學化學學院，安排學生到本集團參與認知見習活動，通過參觀展廳和自動化車間，讓同學們了解到目前製造業在自動化智能化領域的迅猛發展，同時宣傳本集團的僱主品牌，提升企業對年輕人才的吸引力。

We maintain close ties and partnerships with universities to attract young talent. In October 2024, we held a signing ceremony for a school-enterprise cooperation agreement with Guangdong University of Finance and Economics, and were awarded the title of "Best Employer for Graduates" by the university. In November 2024, we hosted a "Open Day" activity, welcoming 20 faculty members and students from institutions such as Guangdong University of Finance and Economics and Foshan University. The event included a guided tour of our facilities, an introduction to China Lesso's development status, and interviews conducted by the Human Resources Department. Seven excellent students were selected as reserve candidates for overseas roles. Each year, we collaborate with the School of Chemistry at Sun Yat-sen University and arrange for students to participate in cognitive internships at our group. Through visits to the exhibition hall and automated workshops, we helped students understand the rapid development of the manufacturing industry in the field of automation and intelligence. We also promoted the employer brand of the Group and enhanced our appeal to young talent.



中山大學和廣東財經大學師生到中國聯塑參觀交流
Faculty and Students from Sun Yat-sen University and Guangdong University of Finance and Economics Visiting China Lesso

促進職業發展

Promoting Career Development

我們致力於建構完善的人才發展體系，通過建立差異化的培養計劃，為員工提供明確的職業發展路徑，幫助員工成才成長。

We are committed to building a well-developed talent development system. By designing differentiated training programs, we provide employees with clear career development pathways to empower their growth.

員工晉升

Employee Promotion

為暢通員工發展通道，明確發展路徑，中國聯塑制定了《職級職務管理辦法》，建立梯級結構及對應層級標準。2024 年，我們深入展開人才盤點工作，為每位員工製作由能力數值和績效組成的人才九宮格，對本集團不同崗位的全體員工進行差異化能力考察。

China Lesso has formulated the *Management Measures for Ranks and Positions* to facilitate employee development and clarify career pathways. We have also established a tiered structure with corresponding standards. In 2024, we conducted an in-depth talent inventory and created a "Nine-box Grid" for each employee, which combines competency scores and performance metrics. This approach has enabled differentiated capability assessments for all employees within the Group.

本集團發展戰略 Group Development Strategy			
人力資源發展戰略 HR Development Strategy			
百千萬人才培養工程 "Hundred-Thousand-Ten Thousand" Talents Training Project			
百 - 百名儲備幹部 Hundred-Hundred reserve cadres 管理類課程 Management courses 領導力課程 Leadership courses	掌舵計劃 Steering plan	高層管理人才儲備課程 Senior management talent reserve courses	MBA、名企考察、戰略解讀、商業思維 MBA, visits of well-known companies, strategic understanding, and business thinking
	領航計劃 Navigation plan	中層管理人才儲備課程 Middle management talent reserve courses	績效改進、目標計劃、組織策劃、客戶導向 Performance improvement, target planning, organizational planning, and customer focus
	遠航計劃 Voyage plan	基層管理人才儲備課程 Junior management talent reserve courses	團隊管理、教練技術、溝通協調、管理職責 Team management, coaching techniques, communication & coordination, and management responsibilities

本集團發展戰略 Group Development Strategy							
人力資源發展戰略 HR Development Strategy							
百千萬人才培養工程 "Hundred-Thousand-Ten Thousand" Talents Training Project							
千 - 千名業務骨幹 Thousand-Thousand business backbones 崗位技能課程 Job skills courses 專業知識課程 Professional knowledge courses	揚帆計劃 Sailing plan	生產製造 Production/manufacturing	行政管理 Adminis-tration	技術研發 Technological R&D	營銷服務 Marketing services	財務資金 Finance/funding	物流採購 Logistics/Procurement
		現場管理 On-site management	人資管理 HR man-agement	技術標準 Technical standards	渠道開發 Channel development	內控管理 Internal control management	倉儲管理 Warehouse manage-ment
		班組建設 Team building	勞資管理 Employ-ment labor manage-ment	產品設計 Product design	客戶管理 Customer management	財稅分析 Finance/Tax analysis	供應鏈管理 Supply chain manage-ment
萬 - 萬名專業技術人員 Ten thousand-Ten thousand professional technicians 職業認證 Professional certification 職稱評審 Title review	啟航計劃 Commencement plan	新員工入職培訓 Induction training for new employees		新晉管理人員培訓 Training for new managers			
	通用課程提升 General course upgrading	大專班 Junior college classes		本科班 Undergradu-ate classes	知識理論 Knowledge based theory	技能實操 Skills practice	職業素養 Profession-alism
	線上學習平台 Online learning platform	聯塑客戶學堂 Lesso school for clients		聯塑雲學堂 Lesso Cloud Academy			
聯塑學院培訓品牌 Lesso College training brand	聯塑講壇 Lesso lecture forum	聯塑私塾 Lesso tutoring		聯塑工匠 Lesso craftsmanship	名師堂 Guest talks	幸福聯塑 Happy Lesso	內訓師工作坊 Internal trainer workshops
聯塑學院人才評鑑 Lesso College talent evaluation	人才盤點 Talent inventory		技能等級認定 Skill level identification		內外部職稱評審 Internal and external title review		

員工培訓
Employee Training

為提升員工培訓的品質及效果，我們持續完善培訓相關內部政策。本年度，我們更新了《內部課程開發管理辦法》及《繼續教育管理辦法》，為服務本集團人力資源戰略、滿足高層次人才需求、激勵員工自我提升提供制度支持。同時，為豐富內部課程，提高課程品質，我們不斷加強對內訓師團隊的培訓工作。2024 年，本集團年度新增 121 名內訓師，包括 109 名初級內訓師、6 名中級內訓師以及 6 名高級內訓師；共計展開 7 期內訓師工作坊課程，涵蓋授課技巧、課程開發技巧、安全培訓技巧等內容，展開一次教師節活動以及一次內訓師認證典禮與評優活動。

We continuously refine our internal training policies to enhance the quality and effectiveness of employee training. In 2024, we updated the *Management Measures for Internal Course Development* and the *Management Measures for Continuing Education* to align with the Group's HR strategy, providing institutional support for meeting the needs of high-level talent, and encouraging self-improvement among employees. Meanwhile, we strengthened our internal trainer team to enrich course offerings and elevate training standards. In 2024, the Group added 121 new internal trainers, including 109 junior internal trainers, six intermediate internal trainers, and six senior internal trainers. We also organized seven internal trainer workshops covering training skills such as instruction, course design, and safety training skills. We also held one Teachers' Day activity and one internal trainer certification and selection ceremony.

我們為員工提供了 HR 骨幹集訓營培訓、領航計劃等豐富的培訓計劃。聯塑雲學堂繼續致力於建構員工學習地圖，規劃專業課程培訓，包括揚帆計劃、遠航計劃、技工培養等，持續推進「百千萬」後備人才培訓工作。

We provide employees with a variety of training programs, including the HR Training Camp and the Navigation Plan. The Lesso Cloud Academy is further devoted to developing learning maps for employees, designing specialized courses such as the Sail Plan, the Voyage Plan, and the technician cultivation plan, and advancing the "Hundred-Thousand-Ten Thousand" reserve talent training.

員工培訓目標 Employee Training Objective

- 每位員工全年培訓不少於 12 小時
Each employee shall receive no less than 12 hours of training throughout the year

關鍵績效 KPIs

2024 年
In 2024

- 展開員工培訓 10,725 場
Employee training sessions: 10,725
- 員工培訓總支出 407,450 元
Total training expenditure per employee: RMB 407,450
- 認證內訓師共計 304 名
Certified internal trainers: 304
- 累計開發課程 49 門
Courses developed: 49
- 課程滿意度平均分 9.55 分（滿分為 10 分）
Average course satisfaction score: 9.55 points (out of 10)



員工培訓數據 Employee Training Data			
員工培訓總時長（小時） Total training hours (Hours)		329,053	
人均培訓時長（小時） Average training hours per employee (Hours)		14	
員工培訓覆蓋率（%） Training Coverage Rate (%)		100	
員工類別 Employee Category		員工培訓平均時長（小時） Average Training Hours per Employee (Hours)	員工培訓覆蓋率（%） Training Coverage Rate (%)
按性別劃分 By gender	男性 Male	14	100
	女性 Female	14	100
按職級劃分 By rank	高層管理 Senior management	11	100
	中層管理 Middle management	30	100
	基層管理 Junior management	19	100
	普通員工 Ordinary employees	13	100

HR 管理骨幹集訓營
HR Training Camp



2024 年 5 月，聯塑學院在湖南聯塑舉辦了線下「LESSO HR 湘約再出發」HR 管理骨幹集訓營。此次集訓營吸引了來自不同業務的 34 名骨幹參與，特邀 8 名內部優秀講師，圍繞人力資源管理相關問題，進行了深入的實例分析和經驗共用。此次培訓共計 589.32 小時，培訓滿意度高達 97.31%，有效深化了各子公司行政人事相關人員之間的溝通與協作，顯著提升了團隊的凝聚力，為本集團的人力資源管理注入了新的活力。

In May 2024, Lesso College organized an offline training camp themed "Lesso HR Reunites in Hunan" at Hunan Lesso. This training camp attracted 34 backbone staff from different sectors, featuring 8 excellent internal lecturers. The training focused on in-depth case studies and experience sharing related to human resource management issues. With a total of 589.32 training hours and a satisfaction rate of 97.31%, the event deepened communication and collaboration among administrative and personnel staff in subsidiaries, significantly enhanced team cohesion, and injected new vitality into the Group's human resources management.



HR 管理骨幹集訓營
HR Training Camp

領航計劃之國際管培生培訓專案
Navigation Plan - International Management Trainee Project



我們展開「國際管培生」培訓項目，旨在回應本集團的經營發展戰略需求，培養具有國際視野和專業能力的人才。該項目於 2024 年共展開 5 期，參訓總人數 102 人。項目安排國際管培生進入車間基地進行實踐操作，同時接受理論培訓，為拓展海外市場、提升銷售能力以及加強幹部儲備提供了有力的支持。

We launched the "International Management Trainee" program to align with the Group's business development strategy and cultivate talents with international perspectives and professional capabilities. In 2024, the program was carried out in 5 sessions, with a total of 102 participants. Trainees gained hands-on experience through rotations in workshop facilities while receiving theoretical training. This program has provided strong support for developing overseas markets, enhancing sales capabilities, and building a robust pipeline of future leaders.



國際管培生在車間基地進行實踐操作
International Management Trainees Practicing at Workshops



國際管培生合照
Group Photo of International Management Trainees

強化商務培訓體系
Strengthening the Business Training System



我們致力於打造一支高質素、專業化的商務團隊，在 2024 年通過系統商務培訓和學習平台，加強商務團隊的專業能力，支持本集團業務的持續發展。我們為新入職的商務人員展開管道商務基礎培訓，總計 198 人參與，培訓內容涵蓋 32 項專業課程。此外，我們在 2024 年完善了線上學習平台，加強客戶學堂的建設，開闢海外學習平台，不斷更新和豐富平台課程，幫助本集團海外業務拓展。

We are committed to building a high-quality, professional business team. In 2024, we enhanced the professional capabilities of our business team through systematic business training and a learning platform, thus supporting the long-term business development of the Group. We conducted a basic business training program for new sales staff, with a total of 198 participants and 32 specialized courses. Meanwhile, we improved our online learning platform, strengthened the construction of Lesso School for Clients, and launched overseas learning platforms. We continuously updated and enriched the platform's courses to facilitate the overseas business expansion of the Group.

技能提升
Skill Enhancement

我們鼓勵員工在職業生涯中不斷進步。為支持員工取得與崗位相關的專業資格證書，我們制定了《員工職級及考證管理辦法》，為員工提供職稱獎勵、學歷證書補貼。2024 年，本集團共發放職稱獎勵人民幣 248,400 元。

We encourage all employees to pursue continuous professional growth. In addition, we have formulated the *Management Measures for Employee Rank and Certification* to support employees in obtaining professional qualifications and certificates relevant to their positions. Our employees will also receive incentives for professional titles and subsidies for academic qualifications. In 2024, the Group has distributed a total of 248,400 yuan in professional title incentives.

在企業職業技能等級評價工作方面，我們在原有叉車司機、模具工、電工、塑膠擠出工和塑膠注塑工 5 個國家認可的職業工種基礎上，今年新增了三個特色工種：倉儲管理員、物理性能檢驗員和質檢員，均已通過政府備案，更好地推動職工技能水平的提高。2024 年，本集團對 640 人進行了企業職業技能高等級認定，其中 599 人成功通過。

In terms of vocational skills assessment, we have expanded our existing nationally recognized job categories of forklift driver, mold worker, electrician, plastic extrusion worker, and plastic injection molding worker. In 2024, we added three specialized job categories, namely warehouse manager, physical property inspector, and quality inspector, all of which have been officially registered with the government. These additions further promote the improvement of employee skills. In 2024, 640 employees underwent advanced skill-level certification assessments, with 599 certified.

在職業認證工作方面，我們深入展開「人人持證上崗」工程和職業認證項目。截至 2024 年底，職業認證項目已有 260 人報名參加，內部認證人數累計達到 889 人。

In the area of professional certification, we have actively implemented the "Certification for All" project and the professional certification program. As of the end of 2024, 260 employees had enrolled in the certification program, with a total of 889 internal certifications.



「崗位技能大比武」競賽活動
"Job Skills Competition" Event



2024 年上半年，我們展開了「崗位技能大比武」競賽活動。本次活動旨在培育和弘揚工匠精神，鼓勵職工繼承和發揚「學一行、愛一行、專一行」的優良傳統，加強技能人才隊伍建設。本次競賽中，共計 29 家子公司參與，共開設 386 個項目，4,952 名員工參賽，755 人獲獎，合計發放獎金超過 33 萬元，其中開設 107 個項目，1,571 人參賽，264 人獲得榮譽稱號。

In the first half of 2024, we launched the "Job Skills Competition" to foster a culture of craftsmanship and encourage employees to uphold the tradition of "mastering, loving, and specializing in their field". The activity also aimed to build a stronger talent team. A total of 29 subsidiaries participated in the competition, which featured 386 events and involved 4,952 employees. 755 winners were awarded, and over RMB 330,000 in prize money was distributed. 107 events were held, with 1,571 participants and 264 employees receiving honors.



「崗位技能大比武」競賽活動頒獎典禮
Award Ceremony of the "Job Skills Competition" Event

榮譽獎項
Honors

中國聯塑獲評「廣東省教評級生態鏈鏈主培育單位」
China Lesso was awarded "Major Cultivation Unit of Vocational Education and Evaluation Ecological Chain Owners of Guangdong Province"

中國聯塑獲評「廣東省工匠學院」
China Lesso was awarded "Guangdong Institute of Craftsman"

提升員工福祉

Enhancing Employee Well-being

中國聯塑不斷完善職業健康與安全管理體系，拓展多元化的人文關懷措施，提升員工的幸福感與歸屬感。

China Lesso continuously improves its occupational health and safety management system and diversifies its employee care measures to enhance employees' sense of happiness and belonging.

員工健康

Employee Health

我們遵循《職業健康安全管理體系要求及使用指南》（GB/T45001-2020），制定了適用於本集團全部運營範圍的《特殊工種崗位人員管理辦法》《危險源辨識、風險評價和措施控制政策》以及《應急準備和回應政策》等三十八項內部制度，全面涵蓋安全設備管理、安全培訓、員工工傷保險管理等方面。同時，我們建立了完善的健康安全體系，設立安全委員會，由本集團 CEO 作為生產安全最高負責人，督促安全監察部、生產製造中心、模具研發中心、倉儲物流中心、客戶服務中心、行政與人力資源中心等部門各司其職共同完成安全工作，並在 2024 年完成了對健康安全體系的內外部審查，切實保障體系落實，為員工提供安全的工作場所。

In accordance with *the Occupational Health and Safety Management Systems - Requirements with Guidance for Use* (GB/T 45001-2020), we have formulated 38 internal policies applicable to all operations of the Group, including the *Management Measures for Specialized Job Positions*, the *Policy for Hazard Identification, Risk Assessment, and Control Measures*, and the *Emergency Preparedness and Response Policy*. These policies comprehensively cover areas such as safety equipment management, safety training, and work-related injury insurance management. Meanwhile, we have developed a sound health and safety system and set up a Safety Committee with the Group's CEO as the highest authority responsible for production safety. With the CEO serving as the chief person responsible for safety production, the relevant departments, including the Safety Monitoring Department, Production and Manufacturing Center, Mold R&D Center, Warehouse and Logistics Center, Customer Service Center, and Administration and Human Resources Center, work together in their respective roles to ensure safety. In 2024, we completed both internal and external audits of our health and safety system to ensure its effective implementation and provide a safe workplace for all employees.

強化安全管理

Strengthening Safety Management

我們始終堅持安全第一、預防為主的工作理念，嚴格落實各級安全責任制度，做到安全巡查檢查常態化、安全隱患整改責任化、安全生產管理規範化、安全管理體系一體化的「四化」措施。

We always prioritize safety and adopt a prevention-first approach. In order to strictly enforce safety responsibilities at all levels, we have implemented "four modernizations" measures, namely regular safety inspections, accountable rectification of potential hazards, standardized safety production management, and an integrated safety management system.

- **施工作業管理：**對外來人員進入廠區作業進行嚴格管控，在危險作業前，嚴格檢查作業人員是否持有有效的上崗證書，並核實動火作業條件是否符合安全要求。

Construction operation management: We strictly control the entry and work of external personnel into the plant. Before any hazardous operations, we ensure that personnel hold valid work certificates and verify that the conditions for hot work meet the required safety standards.

- **特種設備管理：**嚴格遵守《特種設備安全監督檢查辦法》等法規要求，不斷完善管理方式，為各類特種設備配備安全管理人員，要求所有相關人員必須持證上崗，確保特種設備的安全運行。

Special equipment management: We rigorously adhere to the *Regulations on the Safety Supervision and Inspection of Special Equipment* and other relevant regulations. Our management approach is continuously refined. Safety personnel are assigned to oversee various types of special equipment, and all relevant personnel are required to hold valid certifications to ensure the safe operation of such equipment.

- **危險化學品安全管理：**採取加強通風、探測和防洩漏等安全管理措施，定期驗證和檢查安全設備的完好有效性，如去除人體靜電器、洩漏探測報警器等，以確保危險化學品的安全儲存和使用。

Hazardous chemical safety management: We implement safety management measures such as enhanced ventilation, leak detection, and spill prevention. Regular checks and validations are conducted to ensure the effectiveness of safety equipment, including electrostatic eliminators and gas leak detectors, to guarantee the safe storage and use of hazardous chemicals.

車間噴霧降溫裝置改善工作環境 Spray Cooling System Improves Workshop Environment



我們為應對生產車間高溫問題，增加時間調節噴霧降溫裝置。該裝置可降低車間溫度約五攝氏度。此舉有效緩解了高溫對工人作業的影響，提升了工作環境的整體舒適度。

We installed a time-adjustable spray cooling system to address the high temperatures in the production workshop. This device can reduce the workshop temperature by approximately 5°C, effectively mitigating the adverse effects of heat on workers and significantly enhancing the overall comfort of the working environment.



車間噴霧降溫裝置改善工作環境
Spray Cooling System Enhancing the Workshop Environment

中國聯塑通過二級安全生產標準化現場評審 China Lesso Passes On-site Review for Secondary-Level Safety Production Standardization



2024年9月，廣東省應急管理廳組織專家評審組及評審組監督員對我們申報的《安全生產標準化二級企業》達標申請要求進行了現場評審，認為我們的安管理工作領導重視、宣傳到位、基礎紮實，安全成效顯著，一致通過二級安全標準化企業現場評審。未來，我們將持續推進安全標準化管理，確保中國聯塑在安全穩定的環境下實現高質量發展。

In September 2024, the Department of Emergency Management of Guangdong Province organized an expert review panel and supervisory team to conduct an on-site assessment of our application for Level-2 Safety Standardization Enterprise Certification. The panel acknowledged our safety management achievements featuring strong leadership, effective publicity, and a solid foundation. As a result, we unanimously passed the on-site evaluation. In the future, we will continue to enhance safety standardization management and empower China Lesso to achieve high-quality development in a safe and stable environment.

展開安全檢查 Conducting Safety Inspections

為實現杜絕重大安全事故等目標，我們制定年度職業健康安全目標工作計劃，對健康安全體系的內外部審核、請第三方評估及檢測安全設備、高風險作業實時監控、作業場所危險有害因素檢測等措施進行系統規劃，並在每年定期展開電氣安全、消防安全等針對性安全檢查。本年度，我們邀請了外部專家團隊對本集團作業現場展開隱患排查工作，進一步消除安全隱患。此外，為改善職工作業環境，我們定期進行車間危害檢查，邀請第三方對車間的噪聲、粉塵等進行檢測。檢測出的問題會上報車間負責人進行修正，對此採取增加勞動保護工具等相應措施。

To prevent major safety incidents and achieve our broader safety targets, we have developed an annual occupational health and safety work plan. This plan systematically outlines measures such as internal and external audits of the safety system, third-party evaluations and inspections of safety equipment, real-time monitoring of high-risk operations, and hazard assessments of workplaces. In addition, we conduct targeted safety inspections, such as electrical and fire safety audits, on a regular and annual basis. In 2024, we engaged an external team of experts to perform comprehensive on-site hazard identification at our operational sites, thus further eliminating potential safety risks. To improve working conditions, we also perform regular workplace hazard inspections and engage third-party agencies to test noise levels, dust concentration, and other environmental factors in workshops. Any identified issues are reported to the workshop manager for rectification, and necessary measures such as adding labor protection supplies will be implemented accordingly.

針對車間環境展開安全檢查 Safety Inspection of Workshop Environment



2024 年，我們對給水管車間、槽管車間、排水管車間等重點區域進行了全面的檢查。本次檢查總計檢測 207 個崗位，粉塵和化學危害物等指標均未出現超標現象。此外，我們還展開了年度職業健康體檢，加強對職業健康體檢的管理。我們為員工分發職業病防護用品，要求車間領導監督員工的佩戴情況，並在車間的顯著位置設置了職業病危害警示標識，以提高員工對工作環境安全的認識和自我保護能力。

In 2024, we conducted comprehensive inspections of key areas, including the water supply pipe workshop, trough pipe workshop, and drainage pipe workshop. A total of 207 workstations were assessed, with no instances of excessive dust or chemical hazards detected. In addition, we carried out our annual occupational health check-ups and strengthened relevant management. Occupational disease prevention supplies were distributed to employees, and workshop managers were required to monitor proper usage. Warning signs indicating occupational hazards were also placed in prominent locations within the workshops to enhance employees' awareness of workplace safety and their ability to protect themselves.



車間危害物質檢測
Hazardous Substance Testing in Workshops

提升安全意識 Enhancing Safety Awareness

為提升員工的安全意識及自救技能，我們展開消防宣傳月、安全知識競賽和安全生產月等一系列活動，注重對反詐、法律和交通安全等問題的宣導教育，並針對洩漏、觸電、極端暴雨天氣和停電等緊急情況進行應急演練，確保員工能夠在工作中更好地保護自己。

To boost our employees' safety awareness and self-rescue skills, we organize a series of activities, including Fire Safety Promotion Month, Safety Knowledge Competitions, and Safety Production Month. We also emphasize educational sessions on topics such as fraud prevention, legal awareness, and traffic safety. In addition, we conduct emergency drills for scenarios such as leaks, electric shocks, extreme rainstorms, and power outages. These efforts ensure that our employees are better equipped to protect themselves in their daily work.

安全生產月知識競賽 Safety Production Month Knowledge Competition



為響應 2024 年全國安全生產月的號召，提升全體員工的安全生產意識，確保生產活動的安全與高效，我們於 2024 年 6 月舉辦了主題為「人人講安全、個個會應急——暢通生命」的安全生產知識競賽活動，共有 26 支隊伍參與，旨在通過寓教於樂的方式，進一步增強員工的安全意識與應急處理能力，為企業的安全生產建立堅實基礎。

In response to the 2024 National Safety Production Month, we organized a Safety Knowledge Competition in June 2024 to enhance employees' awareness of safety production and ensure safe and efficient production and operations. Under the theme "Safety Awareness and Emergency Response Skills for All – Clearing the Path for Life", the event attracted a total of 26 teams for participation. Through an engaging and interactive approach, the competition further raised employees' safety awareness and emergency response capabilities, laying a solid foundation for safety production.



安全生產月知識競賽
Safety Production Month Knowledge Competition

中國聯塑各子公司組織安全演練 Safety Drills Organized by China Lesso's Subsidiaries



2024 年，本集團各子公司分別展開了消防演練活動，通過應急疏散演習、滅火器材使用培訓、案例學習等方式，增加員工的消防意識，提高員工的應急逃生能力。鶴山聯塑展開了應急疏散逃生演練，讓員工充分體驗救治傷員等情景。聯塑日利門業舉行了粉塵涉爆應急救援演練，模擬車間除塵系統故障導致粉塵爆炸事故，有效檢驗企業與相關部門的應急協作能力，提升員工的安全意識和應對技能。

In 2024, the subsidiaries of the Group organized fire safety drills to enhance employees' fire safety awareness and emergency response capabilities. These drills included emergency evacuation exercises, training on the proper use of fire-fighting equipment, and case studies. Heshan Lesso conducted an emergency evacuation drill, allowing employees to experience real-life rescue scenarios, such as providing first aid to injured individuals. Meanwhile, Lesso Rili Door Industry organized an emergency rescue drill focused on dust explosion incidents. This drill simulated a situation where a failure in the workshop's dust removal system could lead to a dust explosion. This exercise effectively tested coordination between the company and relevant departments, and enhanced employees' safety awareness and emergency response skills.



聯塑子公司展開應急疏散逃生演練
Emergency Evacuation Drill Conducted by Our Subsidiary



聯塑子公司展開消防演練
Fire Safety Drill Conducted by Our Subsidiary

績效獎勵機制
Performance Incentive Mechanism

2024 年，我們進一步增強對相關人員職業健康安全績效考核的力度，制定績效要求，將職業安全績效與職業安全健康相關負責人薪酬全部掛鉤，按區域進行管理，在區域內發生工傷等問題實行全面問責制。

In 2024, we further strengthened occupational health and safety performance assessments for relevant personnel and established performance criteria that directly link occupational safety performance to the compensation of those responsible for occupational health and safety. Management is executed on a regional basis, and a comprehensive accountability system is in place for any work-related injuries or safety incidents within each region.

職業健康管理
Occupational Health Management

為了有效應對工傷事故，我們成立了工傷協調小組，該小組由法律、財務、案件處理以及工會等部門的專業人員和高層領導共同組成。工傷協調小組制定了嚴格的報告和處理流程，確保重大傷亡事故能夠按照相關法律法規得到妥善處理。同時，我們展開了本年度的職業病體檢，針對崗位特點制定體檢項目，並增加了關鍵崗位的體檢次數，從兩年一次改為一年一次。

To effectively address work-related injuries, we have established a Work-related Injury Coordination Team consisting of professionals and senior executives from departments including the Legal Department, the Finance Department, the Incident Handling Department, and the Labor Union. The team has developed strict reporting and handling procedures to ensure that serious injuries and fatalities are handled in full compliance with relevant laws and regulations. In 2024, we conducted occupational health check-ups tailored for specific job characteristics. For critical positions, we increased the frequency of health check-ups from once every two years to once a year to further safeguard employees' well-being.

職業健康與安全目標 Occupational Health and Safety Objectives

- 杜絕重大環境 / 安全事故
Putting an end to major environmental/safety accidents
- 職業病為 0
Zero occupational diseases
- 火災事故為 0
Zero fire accidents
- 工傷發生率為 5 ‰或以下
The incidence rate of work-related injuries is 5‰ and below

關鍵績效 KPIs



2024 年
In 2024

- 參加職業病在崗體檢人數為 2,919 人，體檢合格 2,906 人
2,919 employees received occupational health check-ups, with 2,906 employees passing the examination
- 接受健康與安全培訓的工人共 87,683 人次
A total of 87,683 workers have undergone occupational health and safety training.
- 員工損失工時工傷事故率（LTIFR）為 3.37%（2021 年）；1.99%（2022 年）；1.62%（2023 年）；2.35%（2024 年）
The Lost-Time Injuries Frequency Rate (LTIFR) for employees is 3.37% (2021); 1.99% (2022); 1.62% (2023); 2.35% (2024)
- 承包商損失工時工傷事故率（LTIFR）為 5.82%（2021 年）；5.09%（2022 年）；6.08%（2023 年）；9.28%（2024 年）
The Lost-Time Injuries Frequency Rate (LTIFR) for contractors is 5.82% (2021); 5.09% (2022); 6.08% (2023); 9.28% (2024)
- 本集團未發生安全責任事故
No safety-related incidents occurred within the Group

2022-2024 年工傷及損失工作日數 Work-related Injuries and Lost Days Due to Work-related Injuries from 2022 to 2024

	2022	2023	2024
因工傷損失工作日數 / 工作日 Lost days due to work injury (Working day)	4,728	4,209	6,279
因工亡故人數 / 人 Number of work-related deaths (Persons)	0	0	0
因工亡故比率 / % Work-related death rate (%)	0	0	0
千人工傷意外率 / ‰ Frequency rate of work-related injuries per 1,000 people (‰)	4.78	3.88	5.60

員工關懷
Employee Care

員工幸福是中國聯塑的重要目標，我們支持員工達成生活與工作的平衡，積極展開員工關懷活動，為員工提供從工作條件到親子關懷的切實保障，提升員工幸福感。

Employee well-being is a key priority for China Lesso. We support our employees in achieving a healthy work-life balance and actively various organize employee care activities. From workplace conditions to family support programs, we provide a wide range of benefits to improve employee well-being.

員工溝通

Communication with Employees

2024 年，我們基於雙因素理論對激勵因素和保健因素兩個方面，展開了員工滿意度調查，內容涵蓋個人成長、上下級同事關係、公司政策、工作條件、薪酬以及個人生活等方面，共收集了覆蓋本集團員工的 7,147 份問卷，並分別與中層管理人員和基層管理人員進行了面對面訪談。調查結果顯示，員工對人力資源工作的總體滿意度達到了 84.2%，而對行政後勤工作的總體滿意度為 81.5%。

In 2024, we conducted an employee satisfaction survey based on the Two-Factor Theory. Focusing on the motivational factors and hygiene factors, the survey covered various aspects, including personal growth, workplace relationships, company policies, working conditions, compensation, and work-life balance. We collected a total of 7,147 questionnaires from the Group's employees, and also conducted face-to-face interviews with both middle management and junior management. The survey results indicated an overall satisfaction rate of 84.2% with human resources services, while satisfaction with administrative and logistical support reached 81.5%.

「聯塑人」微信小程序傾聽員工心聲

WeChat Mini Program "Lesso People" Listens to Employee Feedback



我們通過「聯塑人」微信小程序建立起與員工溝通的渠道，以及時回覆、處理員工建議及意見。平台接受的投訴類別包括宿舍生活、用餐消費、倉儲物流、廠區建設、違規違紀、人事關係六個模塊。2024 年，該平台共計收到 176 條投訴及建議，回覆率在 95% 以上。

We have established a communication channel with employees through the WeChat mini program "Lesso People" to promptly respond to and address their suggestions and feedback. The platform categorizes complaints into six modules: dormitory living, dining expenses, warehousing and logistics, plant construction, violations of regulations, and personnel relations. In 2024, the platform received a total of 176 complaints and suggestions, with a response rate exceeding 95%.

員工關懷措施

Employee Care Measures

我們為員工提供了包括年度體檢、親子活動、節日福利、母嬰室等福利措施，為困難員工提供了慰問金和節日禮包。工作之餘，我們還組織了技能大比武、義務獻血和社團協會活動，豐富員工生活，提升員工歸屬感和幸福感。

We offer a comprehensive benefits package for our employees, including annual health check-ups, family activities, holiday bonuses, and mother-and-baby rooms. We also provide financial assistance and holiday gifts to employees facing difficulties. In the leisure time, we organize various activities such as skills competitions, blood donation drives, and club activities to enrich employee lives and enhance their sense of belonging and well-being.



年度體檢
Annual Health Check-ups



防暑降溫送清涼慰問活動
Summer Heat Relief Activities



與困難員工進行座談會
Symposium with Employees in Difficulty



歌唱比賽
Singing Competition



新春慰問活動
Spring Festival Greetings



廠慶運動會
Sports Meeting during the Anniversary of Founding

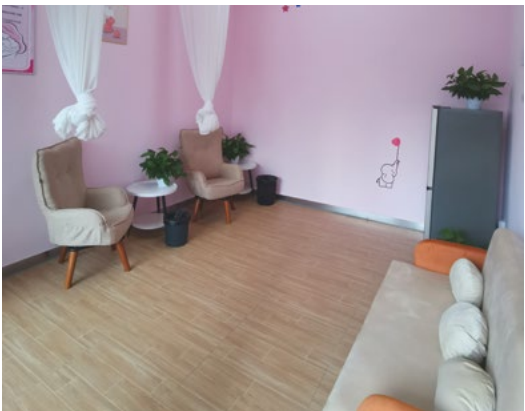
「母嬰室」為媽媽員工提供隱私空間

"Mother-and-Baby Room" Provides Privacy for Working Mother



我們於聯塑學院建立了母嬰室，該母嬰室佔地 13 平米，室內還設有冰箱、置物架，並內設三個獨立的哺乳區，每個區域都細心配置了舒適的單人靠椅、圓桌，同時還配備了便捷的垃圾桶和衛生紙，確保媽媽們的使用體驗。母嬰室保護了有需求的女職工的隱私，提供了極大的生活便利。

We established a mother-and-baby room at Lesso College. This 13-square-meter facility is equipped with a refrigerator and storage shelves. Inside, there are three separate and private nursing areas. Each area is thoughtfully furnished with a comfortable single armchair, a round table, trash cans and tissues, thus ensuring ease of use for mothers. The room protects the privacy of female employees while providing great support for their daily needs.



母嬰室提供沙發及冰箱等便利設施
Mother-and-Baby Room Equipped with Sofa, Refrigerator, and Other Convenient Facilities

05

聚力偕行
攜手互惠共榮

Joining Hands to Achieve Mutually Beneficial Development

中國聯塑始終與供應商夥伴和同行企業保持友好合作關係，以全生命週期的高標準管理，規範供應商及經銷商的經營活動，並積極助力經銷商發展，與同行企業進行密切溝通，攜手建構可持續的行業生態。

China Lesso has always maintained friendly partnerships with supplier partners and industry peers. Through high-standard management during the entire lifecycle, we regulate the business activities of suppliers and distributors, actively support the development of distributors, and engage in close communication with industry peers to jointly build a sustainable industry ecosystem.

回應 SDGs
Response to SDGs



重要性議題 Material Issues	核心策略 Core Strategies
經銷商管理 Distributor management	- 建立完善經銷商激勵、管理制度 Establishing a well-developed incentive and management system for distributors - 扶持經銷商成長、經營 Supporting the growth and operations of distributors
供應商管理 Supplier management	- 建立供應商管理制度，管理供應商 ESG 表現 Developing a supplier management system to monitor ESG performance - 支持供應商能力建設 Supporting capacity building for suppliers
可持續採購 Sustainable procurement	- 倡導綠色採購 Advocating for green procurement - 考核供應商 ESG 表現 Evaluating the ESG performance of suppliers

關鍵績效 KPIs

2024 年 In 2024	
- 原始設備製造（Original Equipment Manufacturing, OEM）供應商審查達標率 100% The compliance rate for Original Equipment Manufacturing (OEM) supplier audits reached 100% - 執行《採購流程手冊》的供應商比例 69.28% 69.28% of suppliers implemented the <i>Procurement Process Manual</i> - 審查的供應商數量 6,690 個 A total of 6,690 suppliers were audited - 展開 237 次供應商培訓，共 2,261 家供應商參與培訓 A total of 237 supplier training sessions were conducted, with participation from 2,261 suppliers - 廣東聯塑入選國家級綠色供應鏈管理企業 Guangdong Lesso was recognized as a national-level green supply chain management enterprise	

打造可持續供應鏈

Building a Sustainable Supply Chain

中國聯塑建立完善的採購及供應商管理機制，制定實施環保、社會責任和品質管理等方面的標準，支持供應鏈能力建設，建構可持續、穩定的供應鏈，實現共同發展。2024 年，廣東聯塑憑藉在綠色供應鏈管理方面的卓越成就，入選為國家級綠色供應鏈管理企業。

China Lesso has established a robust procurement and supplier management mechanism, and formulated standards in areas such as environmental protection, social responsibility, and quality management. We support supply chain capability building and strive to construct a sustainable and stable supply chain for common development. In 2024, Guangdong Lesso was recognized as a national-level green supply chain management enterprise in recognition of its outstanding achievements in green supply chain management.

供應商管理

Supplier Management

為建立規範的供應商管理體系，實現「保障生產需求、保證採購質量」的目標，我們制定並實施《供應商比選及採購定價內控流程手冊》《供應商入庫管理內控流程手冊》《採購流程手冊》及《供應商準入制度》等一系列供應鏈管理內部制度，完善供應商引入、評估與退出機制，識別供應鏈風險，要求供應商遵守《供應商行為守則》，不斷提高供應商產品質量與服務。

In order to establish a standardized supplier management system and achieve our goals of "ensuring production demand and procurement quality", we have developed and implemented a series of internal policies on supply chain management, including the *Supplier Selection and Procurement Pricing Internal Control Process Manual*, the *Supplier Admission Management Internal Control Process Manual*, the *Procurement Process Manual*, and the *Supplier Admission System*. Further efforts are made to improve supplier admission, evaluation, and exit mechanisms, as well as identify supply chain risks. We require suppliers to comply with the *Supplier Code of Conduct*, thereby continuously enhancing their product quality and service capabilities.

2024 年供應商數量

Number of Suppliers in 2024

類別 Category	供應商數目（個） Number of Suppliers
在庫供應商總數 Total number of suppliers in the database	22,751
一級供應商總數 Total number of Tier-1 suppliers	1,029
一級供應商中重要供應商的總數 Total number of significant suppliers in Tier-1	69
非一級供應商中重要供應商的總數 Total number of significant suppliers in non Tier-1	55

類別 Category		供應商數目（個） Number of Suppliers
海外供應商 Number of overseas suppliers		2,798
中國供應商 Suppliers in China	總數 Total	19,953
	華南 South China	8,555
	華中 Central China	1,771
	華北 North China	1,663
	華東 East China	6,052
	西北 Northwest China	807
	西南 Southwest China	830
	東北 Northeast China	257
	中國港澳台 China's Hong Kong SAR, Macao SAR, and Taiwan	18

供應商管理流程

Supplier Management Process

我們根據供應鏈管理制度，完善供應商管理流程，全面推行供應商管理系統，在供應商篩選、準入及考核的全流程對供應商的合規性、環保性及質量管理等方面提出要求。2024 年，本集團已完成所有 OEM 供應商的評估工作，供應商達標率 100%。

In line with our supply chain management system, we have improved the supplier management process and comprehensively implemented a supplier management system. During the entire process of supplier screening, admission, and assessment, we have set requirements for areas such as compliance, environmental protection, and quality management. In 2024, the Group completed assessments of all OEM suppliers, with a compliance rate of 100%.

供應商管理流程
Supplier Management Process

流程 Process	管理措施 Management Measure
準入 Admission	嚴格要求供應商的產品全部符合國家標準及本集團的企業標準。出台制度性文件要求，明確針對供應商的內控標準、驗收標準、生產工藝流程標準。 We strictly require suppliers to ensure that all their products fully comply with national standards and corporate standards of the Group. We have issued institutional documents to clearly define internal control standards, acceptance criteria, and production process standards for suppliers.
考察 Inspection	聯合生產、採購、品管等部門對供應商廠區進行實地考察或突擊檢查，並要求供應商披露他們上下游供應商、環保、工資發放、工作環境等方面的情況。 We organize various departments, such as production, procurement, and quality control, to conduct on-site inspections or unannounced audits of suppliers' facilities. We also require suppliers to disclose information regarding their upstream and downstream suppliers, environmental protection efforts, wage payments, and working environment, and other aspects.
評價 Evaluation	設立供應商考核檔案，要求供應商遵守道德操守、尊重人權、遵守環保法律法規、資源循環利用等。依據《供應商評估內控流程手冊》，各部門定期且獨立對供應商產品品質、交貨期、採購價格、付款方式進行評估。此外，我們對供應商原材料進行抽檢，確保原材料的安全性。 We establish supplier evaluation files and require suppliers to adhere to ethical conduct, respect human rights, comply with environmental laws and regulations, and practice resource recycling. In accordance with the <i>Supplier Evaluation and Internal Control Process Manual</i> , various departments conduct regular and independent assessments of suppliers' product quality, delivery timelines, procurement prices, and payment terms. We also conduct random inspections of suppliers' raw materials to ensure safety.
退出 Exit	對低分供應商採取預警機制，提出修正意見，督促限期修正，否則取消合作並對其實施經濟處罰。 We implement an early-warning system for low-scoring suppliers, issue rectification recommendations, and enforce deadlines for compliance. If improvements are not made, we terminate cooperation and impose financial penalties.

供應商風險管理
Supplier Risk Management

我們持續完善供應鏈風險管理機制，定期對供應鏈風險進行識別與評估，有針對性地細化梳理並部署各類供應鏈風險相應的防範與應對方案，確保供應鏈的競爭力 and 穩定性，進而降低乃至規避供應鏈風險對企業的影響。

We continuously improve our supply chain risk management mechanism, and regularly identify and assess supply chain risks. We systematically develop and deploy targeted prevention and response plans to address various supply chain risks. This approach ensures the competitiveness and stability of supply chains while minimizing or mitigating their impact on corporate operations.

供應鏈風險點及控制點
Supply Chain Risk Points and Control Measures

流程 Process	主要風險點 Main Risk Points	主要控制點 Main Control Measures
供應商入庫 Supplier admission	新供應商開發工作缺乏控制，可能導致引入的新供應商不符合要求 Lack of control in new supplier development may lead to the admission of non-compliant new suppliers	建立新供應商引入審核機制，包括文書審查、現場審查、樣品試用 We establish a new supplier admission review mechanism, including document review, on-site audits, and sample trials
	供應商主數據更新前未經過合理控制，供應商關鍵數據被不當修改，導致資金損失 The master data of suppliers may not be properly controlled before updates, leading to improper modification of critical supplier data and financial losses	建立供應商庫信息更新審核機制，財務部對更新申請進行獨立審核 We implement a supplier database information update review mechanism. The Finance Department will conduct independent reviews of update requests
供應商退出 Supplier exit	無法短期內開發新的代替供應商；淘汰供應商存在未完結事項，導致車間停產、訂單無法推進 Inability to develop new replacement suppliers in the short term; unresolved issues with exiting suppliers leading to production line stoppages and order fulfillment delays	同一產品保證有 2 家或以上的供應商，維護良好供應商關係，根據實際情況進行配方的調整和改進 We ensure there are two or more suppliers for the same product, maintain positive relationships with suppliers, and adjust and improve formulations based on the actual situation
物料試用 Material trial	物料試用環節不完善，缺乏有效的物料驗證機制 Inadequate material trial process due to a lack of an effective material verification mechanism	物料試用工作由負責質量核對和物料運用的技術部門展開 Material trials are conducted by the Technical Department responsible for quality verification and material application
經銷商管理 Distributor management	經銷商管理工作缺乏控制，可能導致經銷商產品質量標準、品牌及推廣、行為準則與商業操守不符合要求 Lack of control in distributor management may lead to distributors' product quality standards, branding and promotion efforts, code of conduct, and business ethics failing to meet requirements	利用積分制管理和信息化工具支持經銷商的規範管理，並提供多方位的培訓 We utilize a points-based management system and information technology tools to support the standardized management of distributors, and provide comprehensive training
	經銷商交貨減少導致銷售訂單收縮；材料需求用量減少，造成材料積壓、去庫減慢，影響生產成本 Reduced distributor deliveries lead to a contraction in sales orders; decreased material demand results in material backlog, slower inventory reduction, and impacts production costs	維護良好的經銷關係，提升經銷商服務工作，特定時期給予經銷商優惠政策 We maintain positive relationships with distributors, improve services for distributors, and provide distributors with preferential policies during specific periods
物流管理 Logistics management	油價上調、交通堵塞等原因造成物流運輸成本增加、貨物運輸時間延長、車間停產 Increased logistics and transportation costs, extended cargo transport time, and production stoppages due to factors such as rising fuel prices and traffic congestion	採用公路運輸、鐵路運輸以及海運等多種運輸方式分散物流運輸的風險 We diversify logistics and transportation risks by adopting multiple transportation modes, including road, rail, and sea freight

可持續採購 Sustainable Procurement

我們重視供應鏈的可持續性，制定《採購流程手冊》《供應商行為守則》等內部制度，提高對供應鏈人權、環境等方面的管理，我們要求供應商簽署《供應商 ESG 承諾書》，並於每個月對供應商的 ESG 表現進行評估，以確保供應鏈的可持續性和社會責任的履行。我們向供應商提出綠色採購倡議，積極建設綠色供應鏈。2024 年，本集團繼續展開共享托盤、綠色包裝等措施，通過採購低碳環保的材料及設備，改善作業環境，提高廢棄物回收效率。

With a high priority on supply chain sustainability, we have formulated internal policies such as the *Procurement Process Manual* and the *Supplier Code of Conduct* and enhanced management of human rights, environmental practices, and other aspects. We require suppliers to sign the *Supplier ESG Commitment Letter* and conduct monthly assessments of their ESG performance to ensure supply chain sustainability and the fulfillment of social responsibility. We have launched a green procurement initiative for our suppliers and are actively building a green supply chain. In 2024, the Group continued initiatives such as shared pallets and green packaging. By procuring low-carbon and eco-friendly materials and equipment, we aim to improve the working environment and increase waste recycling efficiency.

供應商 ESG 管理 Supplier ESG Management

我們對關鍵供應商採用「線上 + 線下」的審核方式，使用供應商準入審核表，全面考察所有供應商在勞工權益、職業健康與安全、質量管理、環境保護、商業道德、管理體系六個方面的表現，包括嚴格檢查供應商的勞動合規情況以及工廠作業是否符合安全生產規範，確保供應商遵守相關法律法規，提供安全、衛生的工作環境。如果發現供應商存在損害勞動人員人權的行為，我們將要求供應商進行整改或終止合作。

We adopt an "online + offline" audit approach for key suppliers. Utilizing a supplier admission audit checklist, we comprehensively assess all suppliers from six dimensions: labor rights, occupational health and safety, quality management, environmental protection, business ethics, and management systems. Relevant measures include rigorously inspecting suppliers' labor compliance and whether factory operations adhere to workplace safety standards. The aim is to ensure suppliers comply with relevant laws and regulations and provide a safe and healthy working environment. If suppliers are found to engage in practices that violate workers' human rights, we will require corrective actions or terminate the partnership.

此外，我們注重打造廉潔供應鏈，制定《供應商行為守則》等制度，要求供應商承諾遵守商業道德相關法律法規，禁止任何形式的腐敗、賄賂、敲詐、挪用公款、洗錢等違法行為，不得索取或接受好處費，不得向有關人員提供金錢或有價物以牟取不正當利益。

Furthermore, we are committed to building a clean supply chain by formulating policies such as the *Supplier Code of Conduct*. We require suppliers to have anti-corruption policies and programs to verify compliance. We also strictly prohibit any form of corruption, bribery, extortion, embezzlement, money laundering, or other illegal activities. Suppliers are prohibited from soliciting or accepting kickbacks, and from offering money or valuables to relevant personnel to seek illegitimate gains.

供應商準入考核表 ESG 相關要求
ESG-Related Requirements for Supplier Admission Evaluation

勞工權益 Labor Rights	職業健康與安全 Occupational Health & Safety	質量管理 Quality Management	環境保護 Environmental Protection	商業道德 Business Ethics	管理體系 Management Systems
禁止使用童工、強迫勞動 Prohibition of child labor and forced labor 工資與社會保障 Wages and social security 工作時間管理 Working hours management 反歧視與反騷擾 Anti-discrimination and anti-harassment 尊重人權 Respect for human rights	工作場所安全 Workplace safety 安全風險管理 Safety risk management 公共衛生 Public health 健康與安全培訓 Health and safety training 員工體檢 Employee health check-ups	質量審核機制 Quality audit mechanism 客戶滿意度調查 Customer satisfaction survey 客戶問題處理管理機制 Customer issue resolution management mechanism	設置環境目標 Setting environmental targets 統計環境數據 Environmental data statistics 綠色辦公制度 Green office system 環保措施 Environmental protection measures	建立內部商業道德制度與機制 Establishing internal business ethics systems and mechanisms 定期進行商業道德培訓 Conducting regular business ethics training 支持產權、商業機密保護機制 Support for property rights and trade secret protection mechanisms 負責任營銷 Responsible marketing 公平競爭 Fair competition	建立社會責任管理體系 Establishing a social responsibility management system 提升員工社會責任意識 Enhancing employees' awareness of social responsibility 供應商 ESG 監控、管理 Supplier ESG monitoring and management

關鍵績效 KPIs

2024 年
In 2024

- 因為社會責任不合規被中止合作的供應商數量 **12** 個
12 suppliers with whom cooperation was terminated due to social responsibility non-compliance
- 因反貪腐而終結合作關係的供應商數量 **1** 個
1 suppliers with whom cooperation was terminated due to anti-corruption issues
- 執行《採購流程手冊》的供應商比例為 **69.28%**
69.28% of suppliers implemented the *Procurement Process Manual*
- 本集團主要供應商已簽署《供應商 ESG 承諾書》
The main suppliers of our Group have signed the *Supplier ESG Commitment Letter*

展開環保合作

Promoting Environmental Cooperation

我們在倡導供應商使用綠色技術的同時，與供應商合作建設光伏電站等項目，共同探索綠色發展道路。

While encouraging suppliers to adopt green technologies, we collaborate with them on projects such as photovoltaic power stations to jointly explore a path toward green development.

與供應商合作光伏項目

Collaborating with Suppliers on a Photovoltaic Project



我們與供應商合作，利用閒置屋頂資源鋪設光伏，積極回應國家可持續發展戰略，支持國家「十四五」新能源規劃。項目建成後，每年可為電網提供清潔電能 1,220MWh。投入運作後，可節約標準煤約 827.25t，減少 CO₂ 排放量約 684.95t、SO₂ 排放量約 0.27t、氮氧化物排放量約 0.11t，還可減少大量的灰渣及煙塵排放，提供高用水效益，減少相應的廢水排放，節能減排效益顯著。

We partnered with suppliers to install photovoltaic systems on idle rooftops, in response to China's national sustainable development strategy and the "14th Five-Year Plan" for the new energy sector. Upon completion, the project can provide 1,220 MWh of clean energy to the grid annually. After commissioning, it can save approximately 827.25 tonnes of standard coal and reduce emissions by approximately 684.95 tonnes of CO₂, 0.27 tonnes of SO₂, and 0.11 tonnes of NO_x. Furthermore, this initiative significantly reduces the emission of ash residue and smoke dust, provides high water-use efficiency, and reduces wastewater discharged.

供應商能力建設

Supplier Capacity Building

我們始終希望與供應鏈合作夥伴共同成長，持續推動供應商在環境、管治及質量方面的成長，並促進供應商建立透明、廉潔的內部管理機制。2024 年，本集團共展開 237 次供應商培訓，共 2,261 家供應商參與培訓。

We are committed to growing together with our supply chain partners, continuously empowering suppliers' growth in ESG aspects, and jointly building transparent and clean internal management mechanisms. In 2024, the Group conducted 237 supplier training sessions, with participation from 2,261 suppliers.

指導產品質量提升

Guiding product quality improvement

我們通過技術交流會、實地考察等形式，對供應商進行產品工藝提升，展開調試、檢測等現場指導工作。

We enhance suppliers' product processes through technical exchange seminars, on-site inspections, and hands-on guidance in areas such as debugging and testing.

協助物流運輸

Assisting with logistics and transportation

我們下屬貨滿運物流公司承接內部廠區周轉及少部分經銷商貨物運輸，提升物流信息化傳遞，提升供應鏈效率。

The subsidiary, Huomanyun Logistics Co., Ltd, handles internal factory area transfers and a portion of our distributors' freight transportation. Further efforts are made to improve logistics information transmission and enhance supply chain efficiency.

提供商業道德培訓

Providing business ethics training

聯塑雲學堂設置反腐敗專題培訓模塊，以供外部供應商等外部人員通過訪客身份進行學習，提升供應商反腐敗、反賄賂等意識，打造廉潔供應鏈。

Lesso Cloud Academy features an anti-corruption training module accessible to external personnel, including suppliers. This enhances suppliers' anti-corruption and anti-bribery measures awareness and helps foster a clean supply chain.



支持經銷商發展

Supporting Distributor Development

中國聯塑視經銷商為並肩作戰的重要夥伴，不斷完善激勵措施，展開經銷商培訓，幫助經銷商全面提升服務能力。

China Lesso values its distributors as key partners, continuously improves incentives, and provides relevant training to enhance their service capabilities.

經銷商管理

Distributor Management

我們制定完善的經銷商管理及激勵制度，通過積分制鼓勵經銷商在提高銷售業績的同時保證服務質素。2024 年，本集團完善一級經銷商的積分制管理措施，建立了獎勵制度，並更新了《聯塑集團管道經銷商積分管理制度細則》，共計新增 4 項細則，調整 6 項細則。我們加強了對經銷商數據真實性的要求及監管，鼓勵經銷商多做工程、主動參與投標、配合本集團打擊假冒等，以實現「積極積分，合作共贏」的目標，與廣大經銷商緊密合作開拓市場，利用積分提高銷售業績，實現互利共贏，并鼓勵經銷商採取環保措施，如使用電車，以推動綠色供應鏈的建設。

We have established a comprehensive distributor management and incentive system. Through a points-based system, we encourage distributors to ensure service quality while improving sales performance. In 2024, the Group refined the points-based management measures for Tier-1 distributors, established a reward system, and updated the *Detailed Rules for Distributor Points Management System of China Lesso*. We added a total of four new detailed rules and adjusted six existing ones. With the goal of "accumulating points for win-win cooperation", we strengthened requirements and oversight for distributor data authenticity, and incentivized distributors to engage in project development, bidding, and anti-counterfeiting efforts. By working closely with distributors to expand markets, we leverage the points-based system to drive sales growth and achieve mutual success. In addition, we encourage distributors to adopt eco-friendly practices, such as using electric vehicles, to promote green supply chain initiatives.

此外，我們採取信息化管理手段，開發聯塑直通車平台，以此清晰地了解經銷商的銷售模式及銷售目標，更精準地制定銷售策略與支持方式。

Furthermore, we utilize digital management tools, including the Lesso Express Platform, to gain keen insights into distributors' sales models and objectives. This empowers us to craft targeted sales strategies and deliver tailored support.

經銷商賦能

Distributor Empowerment

我們採取多種措施促進經銷商經營能力提升，在銷售渠道擴展、開店扶持、商務支持等方面傾力支持經銷商發展，注重與經銷商進行密切溝通，並為經銷商提供多種培訓，助力經銷商成長。

We have implemented various measures to enhance the operational capabilities of our distributors. We provide full support for their development in areas such as expanding sales channels, store opening assistance, and business support. We emphasize close communication with our distributors and offer diverse training programs to facilitate their growth.

渠道擴展

Channel expansion

通過聯塑直通車幫助經銷商展開精準營銷和輕資產經營，拓展銷售渠道。

Through the Lesso Express platform, we assist distributors in conducting precise marketing and asset-light operations, thereby expanding sales channels.

商務支持

Business support

選派商務團隊長期駐點區域，對各區域市場經銷商進行維護管理並提供銷售、公關、談判等支持，保護經銷商權益。

We deploy long-term stationed business teams for the maintenance and management of distributors in each regional market, as well as provide support in areas such as sales, public relations, and negotiations to safeguard distributors' rights and interests.

經銷商溝通

Distributor communication

通過方案宣導會、技能交流活動等與經銷商進行溝通，分享寶貴經驗。

We communicate with distributors through policy promotion sessions, skill exchange activities, and other initiatives to share valuable experience.

經銷商培訓

Distributor Training

2024 年，聯塑雲學堂重點推進經銷商培訓，每月定期推送管理、營銷課程，並引入遊戲化考核以提升學習樂趣。同時，我們利用平台組建雲內訓師團隊，由 40 多名商務經理擔任培訓師，規範師資管理。我們設計了經銷商分區培訓方案，在湖南、河南舉辦了多場經銷商峰會，對經銷商在團隊建設、管道銷售策略、市場開發、數字化營銷和領導力等方面的能力進行培訓，培訓總人數達 508 人，峰會滿意率均在 95% 以上。此外，我們也針對中南美洲經銷商提供了線下培訓，並展開 3 期銷售主題公開課，幫助經銷商提升拓展海外市場的能力。

In 2024, Lesso Cloud Academy prioritized distributor training. Besides regularly delivering monthly courses on management and marketing, we also introduced game-like assessments to enhance learning engagement. We leveraged the platform to establish a cloud-based internal trainer team consisting of over 40 business managers to standardize trainer management. We designed regional training programs and hosted multiple distributor summits in Hunan, and Henan. These summits focused on improving distributors' capabilities in team building, pipe sales strategies, market development, digital marketing, and leadership. A total of 508 participants attended the sessions, with satisfaction rates exceeding 95%. Furthermore, we provided offline training for distributors in Central and South America and launched 3 sales-themed open classes to strengthen their ability to expand into overseas markets.

LESSO 联塑

经销商3月课程推荐

春暖花开，知识相随

<<课程详情

如何建设高效团队

- 团队与团队精神
- 团队建设概述
- 团队目标制定

团队沟通技巧

- 常用沟通方式
- 提高领导者技能
- 重视员工发展

克服团队协作的五种障碍

- 建立信任
- 掌控冲突
- 明确承诺
- 共担责任
- 关注结果

温馨提示

1.学习情况纳入经销商学习积分;

2.学习时间: 3月1日-31日

3.如有疑问, 请咨询营销学院张雪玲(0757-29392947)

云学堂学习指引

2月学习积分查询

联塑云学堂经销商学习推荐
Recommended Distributor Learning Courses by Lesso Cloud Academy



湖南经销商线下培训
Offline Training for Distributors in Hunan



河南经销商线下培训
Offline Training for Distributors in Henan

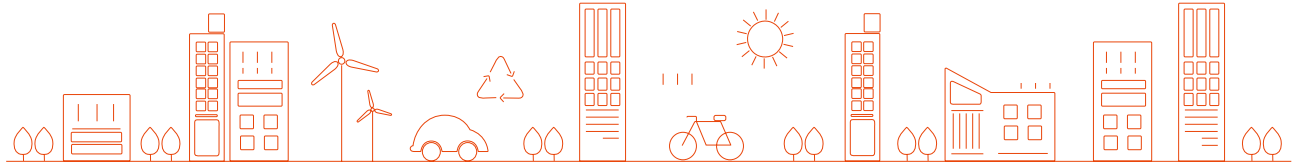
「赋能强基，高效经营」 中國聯塑卓越经销商高峰论坛
China Lesso Excellent Distributor Summit Forum Themed "Empowering Foundations for Efficient Operations"

2024年7月，主題為「賦能強基，高效經營」的中國聯塑卓越經銷商高峰論壇順利召開，旨在提升經銷商市場開拓能力，激發內生動力，並促進本集團與經銷商之間的緊密合作。論壇中，我們向經銷商展開了「必強：管道營銷策略」「寶藏：銷售數字化運營」等培訓課程，提供了一系列實用的市場開拓策略和目標實現方法。本集團高層亦親臨現場，鼓勵經銷商積極應對挑戰，勇於探索新市場。

In July 2024, the China Lesso Excellent Distributor Summit Forum, themed "Empowering Foundations for Efficient Operations", was successfully held. The event aimed to enhance distributors' market development capabilities, stimulate internal motivation, and foster closer collaboration between the Group and its distributors. During the event, we held specialized training sessions for distributors, including the *Essence: Pipe Marketing Strategies* and the *Treasure: Digital Sales Operations*, and provided practical strategies for market development and methods for achieving business goals. Senior executives from the Group also attended the event, encouraging distributors to proactively address challenges and explore new markets with confidence.



「賦能強基，高效經營」 中國聯塑卓越經銷商高峰論壇
China Lesso Excellent Distributor Summit Forum Themed "Empowering Foundations, Efficient Operations"



「合作 & 共贏」秘魯經銷商培訓
Peru Distributor Training Themed "Win-win Cooperation"



2024 年 4 月，來自秘魯的經銷商團隊接受了為期 4 日以「合作 & 共贏」為主題的產品知識培訓，深入探索中國聯塑的創新產品與高效生產流程。經此培育，經銷商們獲得了聯塑學院頒發的經銷商培訓認證，更將先進理念帶回本土，幫助中國聯塑品牌在海外市場的拓展與深耕。

In April 2024, a distributor team from Peru participated in a four-day product knowledge training program themed "Win-win Cooperation". Through this training, participants gained an in-depth understanding of China Lesso's innovative products and efficient production processes. Upon completion, the distributors were certified by Lesso College. Equipped with advanced concepts and knowledge, they returned to their local markets to support China Lesso in developing overseas markets.



「合作 & 共贏」秘魯經銷商培訓
Peru Distributor Training Themed "Win-win Cooperation"



聯塑直通車正式上線
Lesso Express Officially Launched



聯塑直通車平台生於市場變革之際，為經銷商提供全方位服務。該平台匯集全品類產品展示、高效協同數字化供應鏈、專屬 CRM 系統於一體，有助經銷商輕鬆拓寬銷售管道。通過一鍵上架功能，海量商品得以數字化展示，全天候運營無憂。此外，聯塑直通車還配置專業團隊運營，定期策劃優惠福利活動，確保經銷商與終端門店享受便捷高效的訂購體驗。聯塑直通車有效降低了經銷商庫存積壓的風險，協助經銷商轉型為服務型商業體，共創商機新篇章。

In response to the ever-changing market, the Lesso Express platform was launched to provide distributors with a wide range of services. Integrating full-category product displays, efficient digital supply chain collaboration, and a dedicated CRM system, the platform enables distributors to effortlessly expand their sales channels. With a convenient one-click product listing feature, massive products can be digitally showcased and efficiently managed on a 24/7 basis. Moreover, Lesso Express is operated by a professional team that regularly organizes promotional campaigns and special offers to ensure that distributors and retail stores enjoy a convenient and efficient ordering experience. By significantly reducing inventory risks, the platform empowers distributors to transition into service-oriented businesses and jointly creates new market opportunities.



聯塑直通車（雲南）啟動會
Launch Ceremony of Lesso Express (Yunnan)

關鍵績效 KPIs

- 2024 年，展開經銷商線下和在線培訓課程共 **43** 門，培訓時長約 **88** 小時，合共 **3,501** 人次參訓
In 2024, a total of **43** offline and online training courses were conducted for distributors, with approximately **88** training hours and **3,501** enrollments



共創行業藍圖

Jointly Shaping the Future of the Industry

中國聯塑向來注重與同行企業展開友好互動，從制定標準到產學研的深度融合，再到戰略夥伴的攜手並進，共同開闢行業發展的新道路。

China Lesso has consistently prioritized fostering friendly exchange with industry peers. From establishing standards to deepening industry-university-research integration, we work together with strategic partners to forge new paths toward industry development.

加強行業互動

Enhancing Industry Exchange

我們積極參與廣交會、印尼建材展、長沙裝博會等國內外重要展會，與同行公司交流工藝技術，分享本集團的寶貴實踐經驗，促進行業進步。

We actively participate in major domestic and international exhibitions such as the China Import and Export Fair (Canton Fair), the Indonesia Building Technology Expo, and the Central (Changsha) Building Materials New Product Investment Promotion and Whole House Customization Expo. At these events, we exchange technical insights with peer companies, share valuable practical experience from the Group, and contribute positively to industry progress.

中國聯塑參展第 136 屆廣交會
China Lesso Exhibits at the 136th Canton Fair



2024 年 10 月，我們在第 136 屆廣交會上以創新融合的全新產品陣容精彩亮相，展出了包括管材管件系統、高品質不鏽鋼製品、先進防水材料以及高效光伏組件在內的多樣化產品，這些產品不僅體現了本集團對國際市場趨勢的敏銳洞察，也彰顯了我們作為全球管道建材產業領先製造商的雄厚實力。

In October 2024, China Lesso showcased its innovative and integrated product lineup at the 136th Canton Fair, featuring a diverse range of offerings including pipe and pipe fitting systems, high-quality stainless steel products, advanced waterproof materials, and efficient photovoltaic modules. These exhibits not only reflected our keen insight into international market trends, but also demonstrated our strength and capability as the world's leading manufacturer in the piping and building materials industry.



中國聯塑參展第 136 屆廣交會
China Lesso Exhibits at the 136th Canton Fair

2024 聯塑家裝本地服務重要夥伴合作大會成功舉辦
Successful Hosting of the 2024 Liansu Home Decoration Local Service Key Partner Cooperation Conference



2024 年 3 月 8 號，以「乘龍聚勢，掘金取勝」為主題的 2024 聯塑家裝本地服務重要夥伴合作大會於廣東佛山隆重舉行。聯塑家裝提出「水電隱蔽工程整體交付」的概念，透過水電一體「產品 + 施工」成品交付同埋水電一體「監理 + 驗收」質量保障，解決屋企水電裝修隱患，為消費者提供一個放心裝修體驗。

On March 8, 2024, the 2024 Liansu Home Decoration Local Service Key Partner Cooperation Conference, themed "Riding the Wave, Seizing the Opportunity," was grandly held in Foshan, Guangdong. Liansu Home Decoration introduced the concept of "integrated delivery of concealed water and electrical projects," which aims to address potential issues in home water and electrical renovations. This is achieved through an integrated approach that combines "products + construction" for delivery and "supervision + acceptance" for quality assurance. By doing so, Liansu Home Decoration provides consumers with a trustworthy and reassuring home decoration experience.



2024 聯塑家裝本地服務重要夥伴合作大會
2024 Liansu Home Decoration Local Service Key Partner Cooperation Conference

促進夥伴協同

Promoting Partner Collaboration

我們一貫積極參與行業標準的制定工作，持續加深與地方政府、高校及研究機構之間的產學研合作，促進各方資源共享，推動行業共同進步。

We have actively participated in the formulation of industry standards, deepened industry-university-research cooperation with local governments, universities, and research institutes, as well as facilitated resource sharing among stakeholders to jointly promote industry progress.

制定行業標準

Formulating Industry Standards

2024 年，本集團繼續深度參與了標準制定與修訂工作，共主持或參與 40 項國家、行業、團體標準及國家標準設計圖集、技術規程等的制修訂工作，涵蓋了給排水、農業、工業、電力用管道系統等標準，包括 18 項中國標準、10 項行業標準、10 項團體標準以及 2 項國家標準設計圖集。作為第一起草單位，本集團主持制定 3 項標準，包括 2 項國標標準以及 1 項行業標準。

In 2024, the Group continued its active participation in the formulation and revision of industry standards. We led or participated in the drafting and revision of 40 different national, industry, and association standards, as well as national-standard design atlases and technical guidelines. These standards encompassed piping systems for water supply and drainage, agriculture, industry, and electrical applications. There were 18 national standards, 10 industry standards, 10 association standards, and 2 national-standard design atlases. As the primary drafter, the Group led the formulation of 3 standards, including 2 national standards and 1 industry standard.

我們作為第一起草單位主持制定了行業標準 QB/T 8014-2024 《設施農業栽培用硬聚氯乙烯（PVC-U）管材及配件》，符合中國環保政策和低碳發展的需要，推動管道種植的健康可持續發展，促進生態資源高效利用。此外，我們參編了中國塑膠加工工業協會牽頭起草的《塑膠製品碳足跡核算標準》團體標準與《綠色建材評價標準》，引導行業向綠色、低碳、可持續的方向發展。

As the primary drafter, we led the formulation of the industry standard, *Unplasticized Poly (Vinyl Chloride) (PVC-U) Pipes and Fittings for Protected Agriculture Cultivation* (QB/T 8014-2024), in alignment with China's environmental protection policies and low-carbon development needs. This initiative promotes healthy and sustainable pipe-based agriculture cultivation while enhancing the efficient utilization of ecological resources. In addition, we co-developed two group standards led by the China Plastics Processing Industry Association (CPPIA), namely the *Standards for Plastic Products Carbon Footprint Accounting* and the *Assessment Standard for Green Building*. These efforts aim to guide the industry toward green, low-carbon, and sustainable development.

榮譽獎項
Honors



中國聯塑榮獲「AAAAA 級標準化良好行為」證書
China Lesso Awarded the "AAAAA-Level Good Standardizing Practice Certificate"

中國聯塑正式發佈《聯塑家裝隱蔽工程整體交付施工工藝標準白皮書》
China Lesso Releases the *White Paper of Lesso Home Improvement on Concealed Project Overall Delivery and Construction Technology Standards*



2024 年 11 月，我們撰寫的《聯塑家裝隱蔽工程整體交付施工工藝標準白皮書》重磅發佈，該白皮書旨在探討家裝隱蔽工程施工痛點、難點，展現本集團高標準、高品質的施工流程和施工工藝，以 12 大水電成品交付流程以及 108 項水電施工工藝，重新定義水電施工工藝高標準，以成功經驗助力家裝企業以更高的裝修工藝賦能服務水平增長，從而推動行業升級。

In November 2024, we officially released the *White Paper of Lesso Home Improvement on Concealed Project Overall Delivery and Construction Technology Standards*. The white paper aims to discuss the pain points and challenges in concealed project construction and showcase the Group's high-standard, high-quality construction processes and techniques. Featuring 12 delivery processes and 108 construction practices, the document redefines excellence in construction standards for plumbing and electrical installations. By sharing our successful practices, we aim to empower home improvement enterprises to elevate their service quality and craftsmanship, thereby driving industry upgrade.



《聯塑家裝隱蔽工程整體交付施工工藝標準白皮書》發佈現場
Release Event of the *White Paper of Lesso Home Improvement on Concealed Project Overall Delivery and Construction Technology Standards*

產學研合作
Industry-University-Research Cooperation

產學研合作是推動科技創新、實現產業升級的關鍵路徑。我們不斷加大投入，與華南師範大學、華南理工大學等高校及研究機構緊密合作，共同攻克技術難題，同時與塔里木大學、西安建大國際學院、龍江職業技術學校等達成校企合作，共同培育行業人才，推動科技成果的有效轉化。

Industry-university-research cooperation is a key pathway for driving technological innovation and achieving industrial upgrading. We continuously ramp up our investments and work closely with renowned universities and research institutions, such as South China Normal University and South China University of Technology, to jointly tackle technical challenges. At the same time, we have established school-enterprise partnerships with institutions including Tarim University, International School of Xi'an University of Architecture and Technology, and Longjiang Vocational and Technology School to cultivate industry talent and promote the effective commercialization of technological achievements.

2024 年產學研合作名錄
Directory for Industry-University-Research Cooperation in 2024

合作院校 Partner	研究項目 Research Project
廣東達爾新材料有限公司、華南理工大學 Guangdong Daer New Materials Co., Ltd. & South China University of Technology	「表面自更新納米防污塗料的研製及產業化」 "Development and Industrialization of Self-Renewing Nano Anti-Fouling Coatings"
華南師範大學 South China Normal University	「酚醛樹脂多孔微球作為聚氯乙烯熱穩定劑」「一維填料對 PVC 剛性和韌性影響」 "Phenolic Resin-coated Porous Microspheres as PVC Thermal Stabilizers" and "Impact of One-Dimensional Fillers on the Rigidity and Toughness of PVC"



「產教融合訂單班」正式開班

"Industry-Education Integration Order-based Class" Launched



2024年3月25日，廣東聯塑與龍江職業技術學校合作的「產教融合訂單班」開班儀式在聯塑學院隆重舉行。此舉旨在培養適應市場需求的專業人才，實現校企雙贏，共育英才，引領未來。

On March 25, 2024, Guangdong Lesso and Longjiang Vocational and Technology School held the opening ceremony for the joint "Industry-Education Integrated Order-based Class" at Lesso College. This initiative aims to cultivate professionals tailored to market demands, achieve mutual benefits, and foster future leaders.



「產教融合訂單班」正式開班
"Industry-Education Integration Order-based Class" Launched

與企業展開戰略合作

Strategic Cooperation with Enterprises

在氫能和油氣輸送領域，我們與中國石油集團工程材料研究院有限公司簽訂了合作框架協議，共同探索非金屬複合管道的應用。同時，我們與佛山仙湖實驗室建立了合作關係，致力於「氫儲運氣瓶和複合管道技術、裝備、檢測系統及標準研究」的合作發展。

In the field of hydrogen energy and oil & gas transportation, we have signed a framework agreement with CNPC Tubular Goods Research Institute to jointly explore the application of non-metallic composite pipes. Meanwhile, we have established a partnership with Foshan Xianhu Laboratory, aiming to promote the joint research on hydrogen storage and transportation cylinders as well as composite pipe technology, equipment, testing systems, and standards.

中國聯塑與中國石油工程材料研究院達成合作

China Lesso Partners with CNPC Tubular Goods Research Institute



我們與中國石油集團工程材料研究院簽署合作協議，雙方將在石油管及設備材料領域展開全面合作，旨在推進輸氫、油氣用非金屬複合管的研發與推廣，實現技術創新與產業升級。雙方將充分發揮各自在研發、檢測、標準制定及生產製造方面的優勢，共同展開技術研發、性能測試、標準制定及產品推廣等工作。此次合作不僅有助於提升雙方在油氣管道領域的競爭力，也將推動相關產業的技術進步和市場拓展，實現共贏發展。

We have signed a cooperation agreement with CNPC Tubular Goods Research Institute, under which both parties will engage in comprehensive cooperation in the field of oil and gas piping and equipment materials. The aim is to advance the R&D and promotion of non-metallic composite pipes for hydrogen transmission and oil & gas applications, as well as facilitate technological innovation and industrial upgrading. Both sides will leverage their respective strengths in areas such as R&D, testing, standards formulation, and manufacturing to jointly develop technologies, conduct performance tests, formulate standards, and promote products. This cooperation not only enhances both parties' competitiveness in the oil and gas pipeline sector but also fosters technological progress and market expansion in the related industries.



中國聯塑與中國石油集團工程材料研究院有限公司合作協議簽約儀式
Signing Ceremony of the Cooperation Agreement between China Lesso
and CNPC Tubular Goods Research Institute





06
情暖萬家
共築幸福家園

Contributing to Building Happy Communities

中國聯塑深知感恩圖報的重要價值，將社會責任內化為企業發展的堅實根基，積極投身公益事業、慈善捐助和鄉村振興等行動，推動社區經濟繁榮，共創和諧美好的幸福願景。

China Lesso deeply appreciates the important value of gratitude and reciprocity. Guided by our strong sense of social responsibility, we actively engage in public welfare, charitable donations, and rural revitalization initiatives. We are committed to fostering the prosperity of local communities and collaborating to create a better future.

回應 SDGs
Response to SDGs



重要性議題 Material Issues	核心策略 Core Strategies
當地經濟發展 Local economic development	與當地社區建立合作關係，深化企業與社區聯繫 Establishing partnerships with local communities to strengthen enterprise-community connections
公益慈善活動 Public service and philanthropy	- 持續展開義工服務，扶持弱勢群體 Continuously engaging in volunteer services to support vulnerable groups - 組織慈善捐贈 Organizing charitable donations
鄉村振興 Rural revitalization	響應國家鄉村振興政策，積極拓展農業設施的應用，助力貧困地區經濟轉型 Responding to national rural revitalization policies by actively expanding agricultural infrastructure applications and facilitating the economic transformation of impoverished regions
可持續發展戰略與管理 Sustainability strategy and management	強化子公司在環境保護、員工安全、公益捐贈等領域的管理，助力企業實現長遠發展與社會價值 Strengthening subsidiary governance in areas such as environmental protection, employee safety, and public donations to achieve long-term sustainable development and social value

關鍵績效 KPIs

2024 年
In 2024

- 累計對外捐贈 **1,154.25** 萬元
The Group donated RMB **11.5425** million in total
- 員工義工服務達 **167** 小時，參與義工活動 **9** 次
Our staff participated in **9** volunteering activities with a total of **167** service hours



賦能鄉村振興

Empowering Rural Revitalization

推進鄉村振興是新時代建設農業強國的核心任務，也是實現城鄉協調發展的重要戰略方向。中國聯塑深度參與美麗鄉村建設，持續提供先進的產品與技術服務方案，廣泛應用於農業種植、畜牧養殖與漁業生產等領域，助力農村產業煥發新機，為城鄉融合發展注入強勁動力。

Promoting rural revitalization is a fundamental task of building a strong agricultural nation in the new era, as well as an important strategic direction for achieving coordinated urban-rural development. China Lesso is deeply involved in building a beautiful countryside by continuously providing advanced products and technical service solutions. Our innovations are widely applied in fields such as crop cultivation, livestock farming, and aquaculture, helping to rejuvenate rural industries and injecting strong momentum into integrated urban-rural development.

中國聯塑助力茂名高州谷簣村鄉村煥新升級

China Lesso Supports the Revitalization of Gugong Village, Gaozhou, Maoming



2024 年 10 月 1 日，由我們捐建的茂名高州南塘鎮谷簣村入村主幹道拓寬等項目正式竣工並投入使用。項目的完成不僅提升了村容村貌，更顯著改善了村民的出行條件，為鄉村振興提供了有力支撐。

On October 1, 2024, the infrastructure projects we funded, including the expansion of the main access road to Gugong Village in Nantang Town, Gaozhou, Maoming, were completed and put into use. These projects have not only enhanced the village's appearance but also significantly improved transportation conditions for residents. These initiatives provide strong support for rural revitalization.



茂名高州谷簣村入村主幹道拓寬項目
The Expansion Project of the Main Access Road to Gugong Village, Gaozhou, Maoming

中國聯塑助力安徽省懷遠縣農村供水保障工程

China Lesso Supports the Rural Water Supply Improvement Project in Huaiyuan County, Anhui Province



2024 年 6 月，我們憑藉優質的 PE100 給水管和高效的供貨能力，助力安徽省懷遠縣農村供水保障提升工程，為項目優化供水設施、改善水質提供了有力支持。該工程作為「引江濟淮」重點工程和安徽省「讓皖北人民喝上放心水」民生計劃的重要項目，總投資達 2.6 億元，為改善農村飲水問題起到了良好的示範作用。

In June 2024, we contributed to the rural water supply improvement project in Huaiyuan County, Anhui Province by leveraging our high-quality PE100 water supply pipes and efficient delivery capabilities. This project aimed to provide strong support for optimizing water infrastructure and improving regional water quality. As a key component of the "Water Diversion Project from the Yangtze River to the Huaihe River" and Anhui Province's major livelihood project aimed at "Bringing Safe Drinking Water to Residents in Northern Anhui", this project has a total investment of RMB 260 million. It serves as a model for enhancing rural drinking water safety.



懷遠縣農村供水保障工程施工現場
Construction Site of the Rural Water Supply Improvement Project in Huaiyuan County



中國聯塑助推海南特色農業高質量發展
China Lesso Promotes High-Quality Development of Hainan's Specialty Agriculture



我們積極響應鄉村振興戰略，深度參與海南熱帶特色高效農業建設。在項目中，我們創新研發並應用了包括 PVC 農業專用管、PVC 果園打藥管等一系列高品質產品。這些管道具備出色的耐壓和耐腐性能，能靈活適應各種農業種養環境，即使面對極端氣候，也能高效工作於灌溉、噴灌、打藥和輸水等關鍵環節，顯著提升農作物的品質和農業生產的效率。

In response to China's rural revitalization strategy, we have deeply participated in the development of Hainan's tropical high-efficiency specialty agriculture. In this project, we have innovatively developed and applied a series of high-quality products, including PVC agricultural pipes and PVC orchard spray pipes. These pipes feature excellent pressure resistance and corrosion resistance, making them highly adaptable to various agricultural cultivation and breeding environments. Even under extreme weather conditions, they operate efficiently in critical processes such as irrigation, sprinkler systems, pesticide application, and water delivery, significantly enhancing crop quality and agricultural productivity.



海南熱帶特色農業項目現場
Site of the Hainan Tropical Specialty Agriculture Project

聯塑助力內蒙古奶牛基地現代化建設
Lesso Supports the Modernization of a Dairy Farming Base in Inner Mongolia



在參與內蒙古標準化奶牛養殖基地建設的過程中，我們充分發揮自身產品優勢，為其提供高性能 PE 鋼絲網骨架複合管和 PE 給水管道。這些管道具備卓越的耐寒性、耐腐蝕性與抗壓能力，能夠極大程度上適應內蒙古複雜地形和嚴苛氣候條件，切實保障奶牛飲水安全，為內蒙古農牧業現代化及鄉村振興貢獻了重要力量。

As part of the construction of a standardized dairy farming base in Inner Mongolia, we leveraged our product advantages to supply high-performance PE steel wire mesh reinforced composite pipes and PE water supply pipes. These pipes offer exceptional cold resistance, corrosion resistance, and pressure-bearing capacity, enabling them to adapt effectively to the complex terrain and harsh climatic conditions in Inner Mongolia. By ensuring a safe and reliable water supply for dairy cattle, our solutions have contributed significantly to the modernization of animal husbandry and rural revitalization in the region.



內蒙古奶牛基地施工現場
Construction Site of the Dairy Farming Base in Inner Mongolia

心繫社會民生

Commitment to Social Well-being

企業不僅是經濟發展的推動者，更是社會和諧的實踐者。中國聯塑制定《慈善公益項目管理辦法》，以規範化與專業化為公益事業注入持久動力。我們始終與社區保持緊密聯繫，積極回應弱勢群體的多樣化需求，通過持續展開助學築夢、關愛特定人群等公益活動，以點滴善行繪就共建共享的幸福藍圖。

As a catalyst of economic progress and a steward of social harmony, China Lesso has formulated the *Management Measures for Charity and Public Welfare Projects* to infuse lasting momentum into philanthropic endeavors through standardized and professional practices. We maintain close ties with communities and actively address the diverse needs of vulnerable groups. Through ongoing initiatives such as educational support and care for disadvantaged groups, we jointly contribute to a shared vision of social well-being.

中國聯塑接力關愛，持續傳遞「聯愛萬家」新春溫情
China Lesso Continues the "Connecting Millions of Families with Love" Spring Festival Blessing Bag Campaign



我們已連續 8 年冠名支持「聯愛萬家」新春愛心福袋活動，以實際行動關懷社區困難群體。2024 年 1 月 23 日，我們與龍江慈善會攜手捐贈總值 68,666 元的愛心福袋，惠及龍江鎮 232 戶低收入家庭、淳愛康園工療中心及星友孤獨症兒童康復中心，為社會弱勢群體帶來切實幫助與溫暖關懷。

We have sponsored the "Connecting Millions of Families with Love" Spring Festival Blessing Bag Campaign for eight consecutive years, demonstrating our commitment to supporting vulnerable communities. On January 23, 2024, together with the Longjiang Charity Association, we donated charity gift bags worth a total of RMB 68,666 to 232 low-income families in Longjiang Town, as well as the Chunai Kangyuan Occupational Therapy Center and the Xingyou Autism Rehabilitation Center. This effort provided tangible assistance and heartfelt care to disadvantaged groups.



「聯愛萬家」新春愛心福袋活動
"Connecting Millions of Families with Love" Spring Festival Blessing Bag Campaign

中國聯塑捐資助學，助力龍山中學煥發新輝
China Lesso Donates to Longshan Middle School



2024年5月18日，順德龍山中學綜合樓「聯塑樓」正式冠名落成。我們捐資1,000萬元，用於綜合樓建設，以實際行動支持教育事業發展。「聯塑樓」集階梯教室、圖書館、書法室、實驗室等多功能於一體，極大豐富了學生的第二課堂，以善舉賦能教育，為學子築夢未來。

On May 18, 2024, the newly constructed Lesso Building at Shunde Longshan Middle School was inaugurated. With a donation of RMB 10 million, we contributed to the construction of this comprehensive facility, demonstrating our commitment to supporting education. The building integrates lecture halls, a library, calligraphy studios, laboratories, and other multifunctional spaces, significantly enriching students' extracurricular learning experience. Through this philanthropic initiative, we empower education and help students pursue a brighter future.



中國聯塑捐建龍山中學「聯塑樓」
The "Lesso Building" at Longshan Middle School

扶持教育事業
Supporting Education



陝西聯塑教師節慰問
Teacher's Day Appreciation Event by Shaanxi Lesso



雲南聯塑為貧困學生發放現金捐贈
Yunnan Lesso Distributes Cash Donations to Impoverished Students

關愛特殊群體
Caring For Special Groups



四川聯塑加入八角井街道慈善基金
Sichuan Lesso Joins the Bajiaojing Subdistrict Charity Fund



陝西聯塑慰問弱勢群體
Shaanxi Lesso Visits Vulnerable Groups

心繫當地社區
Contributing to Local Communities



湖南聯塑馳援資興市抗洪救災
Hunan Lesso Supports Flood Relief Efforts in Zixing



廣東聯塑向龍江生菜會捐贈
Guangdong Lesso Donates to the Longjiang Lettuce Foundation

未來展望

Outlook

中國聯塑秉持「為居者構築輕鬆生活」的品牌理念，堅定不移地朝著智能化、綠色化、可持續方向發展，堅持技術創新，打造企業新質生產力，打造健康美好的生活空間。

我們將加速智能化升級，以「智造」加碼「製造」，積極引進國際一流生產設施，在智能工廠、企業數字化管理平台等領域持續佈局，打造「物聯網、智能製造和自動化生產」為一體的智能工廠，成為建材家居行業製造標竿，為經濟高質量發展注入強大動能。我們將提升資源利用效率，減少能耗和排放，通過持續創新研發和迭代升級，推動綠色產品認證，進一步構建高效、綠色、智能的全新產業鏈。我們將積極參與鄉村振興，充分延伸管道主業價值，發揮聯塑管道在農村供水、排污等方面的優勢，有力推進農村人居環境改善、農民生活水平提升，讓美麗鄉村建設真正普惠於民。

百舸爭流，當奮楫者先；凝心聚力，方行穩致遠。新的一年，中國聯塑將繼續堅持可持續發展戰略，為客戶提供更優質的產品和服務，為股東帶來長期回報，為員工提供全面發展的職業平台，為合作夥伴構築堅實可信的合作基石，為地球保衛綠色未來，為社會創造更大的價值。

Upholding the brand philosophy of "Building a Relaxing Life for Residents", China Lesso remains committed to pursuing intelligent, green, and sustainable development. Through continuous technological innovation, we strive to develop new quality productive forces and create healthier, better living spaces.

We will accelerate the upgrade from "manufacturing" to "intelligent manufacturing". Through the adoption of world-class production facilities, we are advancing initiatives such as smart factories and enterprise digital management platforms and creating smart factories that integrate "Internet of Things (IoT), intelligent manufacturing, and automated production". This will set a benchmark in the building materials and home improvement industry while injecting strong momentum into high-quality economic development. We will improve resource utilization efficiency, reduce energy consumption and emissions, and support green product certifications through continuous innovation and iterative upgrades. These measures will further establish a highly efficient, eco-friendly, and intelligent industrial chain. Moreover, we will actively contribute to rural revitalization by extending the value of our core pipe business. Leveraging the advantages of our piping solutions in rural water supply, sewage management, and other areas, we aim to significantly improve rural living conditions and enhance farmers' quality of life. Through our efforts, the building of a beautiful countryside will benefit all.

In the new year, China Lesso will remain committed to its sustainability strategy. We will deliver superior products and services to our customers, generate long-term value for shareholders, foster a robust career platform for employees, build a reliable foundation for partnerships, safeguard a greener future for our planet, and create greater value for society.

ESG 指標索引

ESG Indicator Index

環境 Environment			
層面 Aspect	指標編號 Indicator No.	指標內容 Content	所在報告位置 Location in the Report
A1：排放物 A1: Emissions	一般披露 General Disclosure	有關廢氣及溫室氣體排放、向水及土地的排污、有害及無害廢棄物的產生等的： a) 政策；及 b) 遵守對發行人有重大影響的相關法律及規例的資料。 Information on: a) the policies; and b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	堅持綠色運營 Upholding Green Operation 應對氣候變化 Addressing Climate Change
	A1.1	排放物種類及相關排放數據。 The types of emissions and respective emissions data.	「三廢」管理 Management of "Three Types of Waste"
	A1.2	直接（範圍 1）及能源間接（範圍 2）溫室氣體排放量（以噸計算）及（如適用）密度（如以每產量單位、每項設施計算）。 Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	應對氣候變化 Addressing Climate Change
	A1.3	所產生有害廢棄物總量（以噸計算）及（如適用）密度（如以每產量單位、每項設施計算）。 Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	「三廢」管理 Management of "Three Types of Waste"
	A1.4	所產生無害廢棄物總量（以噸計算）及（如適用）密度（如以每產量單位、每項設施計算）。 Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	「三廢」管理 Management of "Three Types of Waste"
	A1.5	描述所訂立的排放量目標及為達到這些目標所採取的步驟。 Description of emissions target(s) set and steps taken to achieve them.	推動綠色目標 Promoting Green Targets
	A1.6	描述處理有害及無害廢棄物的方法，及描述所訂立的減廢目標及為達到這些目標所採取的步驟。 Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	推動綠色目標 Promoting Green Targets 「三廢」管理 Management of "Three Types of Waste"

環境 Environment			
層面 Aspect	指標編號 Indicator No.	指標內容 Content	所在報告位置 Location in the Report
A2：資源使用 A2: Use of Resources	一般披露 General Disclosure	有效使用資源（包括能源、水及其他原材料）的政策。 Policies on the efficient use of resources, including energy, water and other raw materials.	發展循環經濟 Developing Circular Economy
	A2.1	按類型劃分的直接及／或間接能源（如電、氣或油）總耗量（以千個千瓦時計算）及密度（如以每產量單位、每項設施計算）。 Direct and/or indirect total 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).	應對氣候變化 Addressing Climate Change
	A2.2	總耗水量及密度（如以每產量單位、每項設施計算）。 Water consumption in total and intensity (e.g. per unit of production volume, per facility).	發展循環經濟 Developing Circular Economy
	A2.3	描述所訂立的能源使用效益目標及為達到這些目標所採取的步驟。 Description of energy use efficiency target(s) set and steps taken to achieve them.	推動綠色目標 Promoting Green Targets
	A2.4	描述求取適用水源上可有任何問題，以及所訂立的用水效益目標及為達到這些目標所採取的步驟。 Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and the steps taken to achieve them.	發展循環經濟 Developing Circular Economy 推動綠色目標 Promoting Green Targets
A3：環境及天然資源 A3: Environment and Natural Resources	A2.5	製成品所用包裝材料的總量（以噸計算）及（如適用）每生產單位佔量。Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	發展循環經濟 Developing Circular Economy
	一般披露 General Disclosure	減低發行人對環境及天然資源造成重大影響的政策。 Policies on minimising the issuer's significant impacts on the environment and natural resources.	環境管理 Environmental Management
A4：氣候變化 A4: Climate Change	A3.1	描述業務活動對環境及天然資源的重大影響及已採取管理有關影響的行動。 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	環境管理 Environmental Management
	一般披露 General Disclosure	識別及應對已經及可能會對發行人產生影響的重大氣候相關事宜的政策。 Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	應對氣候變化 Addressing Climate Change
	A4.1	描述已經及可能會對發行人產生影響的重大氣候相關事宜，及應對行動。 Description of significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	應對氣候變化 Addressing Climate Change

社會 Social			
層面 Aspect	指標編號 Indicator No.	指標內容 Content	所在報告位置 Location in the Report
B1：僱傭 B1: Employment	一般披露 General Disclosure	有關薪酬及解僱、招聘及晉升、工作時數、假期、平等機會、多元化、反歧視以及其他待遇及福利的： a) 政策；及 b) 遵守對發行人有重大影響的相關法律及規例的資料。 Information on: a)the policies; and b)compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	維護員工權益 Safeguarding the Rights and Interests of Employees
	B1.1	按性別、僱傭類型（如全職或兼職）、年齡組別及地區劃分的僱員總數。 Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	平等共融 Equality and Inclusion
	B1.2	按性別、年齡組別及地區劃分的僱員流失比率。 Employee turnover by gender, age group and geographical region.	平等共融 Equality and Inclusion
B2：健康與安全 B2: Health and Safety	一般披露 General Disclosure	有關提供安全工作環境及保障僱員避免職業性危害的： a) 政策；及 b) 遵守對發行人有重大影響的相關法律及規例的資料。 Information on: a)the policies; and b)compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	員工健康 Employee Health
	B2.1	過去三年（包括匯報年度）每年因工亡故的人數及比率。 Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	員工健康 Employee Health
	B2.2	因工傷損失工作日數。 Lost days due to work injury.	員工健康 Employee Health
	B2.3	描述所採納的職業健康與安全措施，以及相關執行及監察方法。 Description of occupational health and safety measures adopted, and how they are implemented and monitored.	員工健康 Employee Health

社會 Social			
層面 Aspect	指標編號 Indicator No.	指標內容 Content	所在報告位置 Location in the Report
B3：發展及培訓 Development and Training	一般披露 General Disclosure	有關提升僱員履行工作職責的知識及技能的政策；描述培訓活動。 Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	促進職業發展 Promoting Career Development
	B3.1	按性別及僱員類別（如高級管理層、中級管理層）劃分的受訓僱員百分比。 The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	促進職業發展 Promoting Career Development
	B3.2	按性別及僱員類別劃分，每名僱員完成受訓的平均時數。 The average training hours completed per employee by gender and employee category.	促進職業發展 Promoting Career Development
B4：勞工準則 B4: Labour Standards	一般披露 General Disclosure	有關防止童工或強制勞工的： a) 政策；及 b) 遵守對發行人有重大影響的相關法律及規例的資料。 Information on: a)the policies; and b)compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labor.	合規僱傭 Compliant Employment
	B4.1	描述檢討招聘慣例的措施以避免童工及強制勞工。 Description of measures to review employment practices to avoid child and forced labor.	合規僱傭 Compliant Employment
	B4.2	描述在發現違規情況時消除有關情況所採取的步驟。 Description of steps taken to eliminate such practices when discovered.	合規僱傭 Compliant Employment
	一般披露 General Disclosure	管理供應鏈的環境及社會風險政策。 Policies on managing environmental and social risks of the supply chain.	打造可持續供應鏈 Building a Sustainable Supply Chain
B5：供應鏈管理 B5: Supply Chain Management	B5.1	按地區劃分的供應商數目。 Number of suppliers by geographical region.	打造可持續供應鏈 Building a Sustainable Supply Chain
	B5.2	描述有關聘用供應商的慣例，向其執行有關慣例的供應商數目，以及相關執行及監察方法。 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	打造可持續供應鏈 Building a Sustainable Supply Chain
	B5.3	描述有關識別供應鏈每個環節的環境及社會風險的慣例，以及相關執行及監察方法。 Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	打造可持續供應鏈 Building a Sustainable Supply Chain

社會 Social			
層面 Aspect	指標編號 Indicator No.	指標內容 Content	所在報告位置 Location in the Report
B5: 供應鏈管理 B5: Supply Chain Management	B5.4	描述在揀選供應商時促使多用環保產品及服務的慣例，以及相關執行及監察方法。 Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	打造可持續供應鏈 Building a Sustainable Supply Chain
B6: 產品責任 B6: Product Responsibility	一般披露 General Disclosure	有關所提供產品和服務的健康與安全、廣告、標籤及私隱事宜以及補救方法的： a) 政策；及 b) 遵守對發行人有重大影響的相關法律及規例的資料。 Information on: a) the policies; and b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	嚴控產品質量 Controlling Product Quality Strictly
	B6.1	已售或已運送產品總數中因安全與健康理由而須回收的百分比。 Percentage of total products sold or shipped subject to recalls for safety and health reasons.	嚴控產品質量 Controlling Product Quality Strictly
	B6.2	接獲關於產品及服務的投訴數目以及應對方法。 Number of products and service related complaints received and how they are dealt with.	提升客戶體驗 Improving Customer Experience
	B6.3	描述與維護及保障知識產權有關的慣例。 Description of practices relating to observing and protecting intellectual property rights.	保護知識產權 Protecting Intellectual Property
	B6.4	描述質量檢定過程及產品回收程序。 Description of quality assurance process and recall procedures	嚴控產品質量 Controlling Product Quality Strictly
	B6.5	描述消費者資料保障及私隱政策，以及相關執行及監察方法。 Description of consumer data protection and privacy policies, and how they are implemented and monitored.	保護客戶私隱 Protecting Customer Privacy

社會 Social			
層面 Aspect	指標編號 Indicator No.	指標內容 Content	所在報告位置 Location in the Report
B7: 反貪污 B7: Anti-corruption	一般披露 General Disclosure	有關防止賄賂、勒索、欺詐及洗黑錢的： a) 政策；及 b) 遵守對發行人有重大影響的相關法律及規例的資料。 Information on: a) the policies; and b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	商業道德 Business Ethics
	B7.1	於匯報期內對發行人或其僱員提出並已審結的貪污訴訟案件的數目及訴訟結果。 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.	商業道德 Business Ethics
	B7.2	描述防範措施及舉報程序，以及相關執行及監察方法。 Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	商業道德 Business Ethics
	B7.3	描述向董事及僱員提供的反貪污培訓。 Description of anti-corruption training provided to directors and staff.	商業道德 Business Ethics
B8: 社區投資 B8: Community Investment	一般披露 General Disclosure	有關以社區參與來了解運營所在社區需要和確保其業務活動會考慮社區利益的政策。 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.	情暖萬家 共築幸福家園 Contributing to Building Happy Communities
	B8.1	專注貢獻範疇（如教育、環境事宜、勞工需求、健康、文化、體育）。 Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).	情暖萬家 共築幸福家園 Contributing to Building Happy Communities
	B8.2	在專注範疇所動用資源（如金錢或時間）。 Resources contributed (e.g. money or time) to the focus area.	情暖萬家 共築幸福家園 Contributing to Building Happy Communities

意見反饋表

Feedback

尊敬的讀者：

您好！感謝您於百忙中閱讀我們的報告。期待您分享關於報告的任何意見與想法，幫助我們持續改進報告編制方式與社會責任工作表現。

Dear readers:

Thank you for taking the time to read this report. We look forward to receiving your opinions and suggestions, which will help us to improve the report preparation and enhance our performance in fulfilling social responsibility.

以下哪個利益相關方最切合您的身份？

What is the stakeholder type that best describes your position?

- ☐政府監管機構 Government regulatory authority
- ☐員工 Employee
- ☐客戶 Customer
- ☐供應商 Supplier
- ☐經銷商 Distributor
- ☐社區公眾 Communities and general public
- ☐投資者股東 Investor
- ☐環保組織 Environmental Organization
- ☐其他（請註明） Other (please specify)

您認為本報告：

Your opinion on this report:

	很好 Very good	較好 Good	一般 Acceptable	較差 Poor	很差 Very poor
報告結構 Structure of the report					
信息披露 Information disclosure					
版式設計 Layout and design					
可讀性 Readability					
總體評價 Overall evaluation					

哪個篇章最切合您的需要？（可選 2 項）

Which part(s) of this report is (are) the most useful to you? (You can select up to 2 items)

- ☐董事長致辭 Chairman's Message
- ☐關於我們 About Us
- ☐責任專題 Responsibility Spotlight
- ☐行穩致遠 賦能持續發展 Striving to Empower the Sustainable Development
- ☐堅守品質 深化多元領域 Upholding Exceptional Quality for Multiple Categories
- ☐綠色共生 引領低碳未來 Protecting the Environment Towards a Low-carbon Future
- ☐戮力同心 堅守人本理念 Jointly Building A People-oriented Workplace
- ☐聚力偕行 攜手互惠共榮 Joining Hands to Achieve Mutually Beneficial Development
- ☐情暖萬家 共築幸福家園 Contributing to Building Happy Communities
- ☐未來展望 Outlook

您對我們的可持續發展報告或履責表現，還有哪些意見或建議？您可以通過中國聯塑 CSR 專用郵箱 csr@lesso.com 反饋給我們。

Do you have any other comments or suggestions regarding our Sustainable Development Report or performance? Please send your feedback to the dedicated CSR mailbox of China Lesso: csr@lesso.com.



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