



心连心

China XLX Fertiliser Ltd.

中國心連心化肥有限公司*

(Incorporated in Singapore with limited liability)
(於新加坡註冊成立之有限公司)

Stock Code 股份代號: 1866

* For identification purposes only 僅供識別



2024

**Environmental, Social
and Governance Report**
環境、社會及管治報告



Green Ecology High-quality Development
綠色生態 高質發展

**High-Efficiency
Fertilisers in China**
中國高效肥

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About this Report

關於本報告

This report is the ninth Environmental, Social and Governance Report (ESG Report) released by China XLX Fertiliser Ltd., which aims to disclose the Group's actions and performance in environmental, social and governance (ESG) aspects, and deepen stakeholders' understanding of the Group's sustainable development actions.

SCOPE OF REPORT

The disclosure in this report covers China XLX Fertiliser Ltd. and its subsidiaries, spanning from January 1, 2024 to December 31, 2024. To enhance the report's comparability and perspectiveness, certain sections have been appropriately backdated to previous years or include forward-looking statements.

PREPARATORY BASIS OF REPORT

This report was prepared in compliance with the Environmental, Social and Governance Reporting Code under Appendix C2 to the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited (HKEX), and with reference to the Sustainability Reporting Standards (GRI Standards) issued by the Global Sustainability Standards Board (GSSB), the Sustainability Accounting Standards Board (SASB) standards, the International Financial Reporting Standard on Sustainable Disclosures 2 - Climate-related Disclosures (IFRS S2) framework recommendations issued by the International Sustainability Standards Board (ISSB), and the United Nations Sustainable Development Goals ("SDGs").

REPORTING PRINCIPLES

The report follows the four reporting principles of Materiality, Quantitative, Balance and Consistency outlined in the HKEX's ESG Reporting Code. It also adheres to the disclosure requirements regarding "mandatory disclosure" and "explain or comply" provisions. XLX Group affirms the absence of false or misleading information in this report and accepts responsibility for its accuracy, truthfulness, and comprehensiveness.

本報告為中國心連心化肥有限公司發佈的第九份環境、社會及管治報告（簡稱「ESG報告」），重點展示心連心集團環境、社會及管治（簡稱「ESG」）的行動和績效，期待通過每年報告的發行，促進各利益相關方對本集團可持續發展行動的了解。

報告範圍

本報告披露內容覆蓋中國心連心化肥有限公司及其附屬公司。時間範圍為2024年1月1日至2024年12月31日，為增強報告可比性及前瞻性，部分內容適當追溯以往年份或具有前瞻性表述。

報告編制依據

本報告編制參照香港聯合交易所有限公司（簡稱「聯交所」）上市規則附錄C2《環境、社會及管治報告守則》，並參考全球可持續發展標準委員會（GSSB）發佈的《可持續發展報告標準》（GRI Standards）、可持續會計準則委員會（SASB）準則、國際可持續準則理事會（ISSB）發佈的《國際財務報告可持續披露準則第2號——氣候相關披露》（簡稱IFRS S2）框架建議、《聯合國可持續發展目標》（Sustainable Development Goals）（簡稱「SDGs」）。

匯報原則

本報告遵循香港聯交所《環境、社會及管治報告守則》中的重要性、量化、平衡和一致性四項報告原則進行編制，以及「強制披露」「不遵守就解釋」條文層面的披露責任。心連心集團承諾本報告不存在任何虛假記載、誤導性陳述，並對其內容真實性、準確性和完整性負責。

Materiality 重要性



The Group conducts stakeholder communications and material issue evaluations annually to identify material ESG issues and ensure that issues of higher material importance are responded to and disclosed in this report.

本集團每年開展利益相關方溝通及實質性議題評估，以識別重大的 ESG 議題，並對重要性程度較高的議題進行重點回應和披露。

Quantitative 量化



This report uses quantitative approaches to assess the applicable KPIs and discloses the methodology, basis and dimension of the measurements.

本報告採用量化的方法對適用的績效指標進行計量，並披露計量方法、依據及口徑。

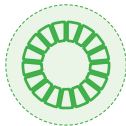
Balance 平衡



This report provides a transparent picture of the Group's work and performance on various ESG issues for objective review by stakeholders.

本報告透明地披露本集團於各 ESG 議題的工作與表現，以供利益相關方客觀地檢閱。

Consistency 一致性



Unless otherwise indicated, this report adopts the same disclosure and statistical methodology as that of previous years' reports to ensure comparability of ESG data between the current reporting period and historical/future data. Any alterations in statistical measures will be clearly delineated in the note.

除特別說明，本報告採用與往年報告相一致的披露統計方法，確保 2024 年的 ESG 數據與歷史數據及未來數據具有可比性。若指標統計口徑發生變化，將在報告中進行注釋說明。

DESCRIPTION OF REFERENCES

For easy reference, in the report, "XLX Group""We" and "the Group" refer to "China XLX Fertiliser Ltd." and its subsidiaries. For other titles used in the report, please see "Other Titles".

稱謂說明

為便於表述，報告中的「心連心集團」「我們」「本集團」均指代「中國心連心化肥有限公司」及其附屬公司。報告使用的其他稱謂詳見「其他稱謂說明」。

PUBLICATION OF REPORT

This report is published in electronic format and is available in Traditional Chinese and English. To get the report, please visit www.hkexnews.hk, or <http://www.chinaxlx.com.hk>. In case of any inconsistency or discrepancy between the Chinese and English versions of this report, the Traditional Chinese version shall prevail.

報告獲取

本報告提供繁體中文、英文兩種版本，可在香港聯交所網站 (www.hkexnews.hk) 及本集團網站 (<http://www.chinaxlx.com.hk>) 下載瀏覽。若本報告的中英文版本有歧義或不相符之處，概以繁體中文版本為準。

FEEDBACK

The Group eagerly welcomes feedback from stakeholders to enhance sustainability performance continually. For any inquiries regarding this report, please contact us via our email address: ir@chinaxlx.com.hk.

意見反饋

本集團真誠地期待來自利益相關方的意見，以便持續改善可持續發展績效。若對本報告有任何疑問，歡迎通過公司郵箱 ir@chinaxlx.com.hk 與本集團聯絡。

Board of Directors' ESG Statement

董事會 ESG 聲明

As the highest authority overseeing the Group's ESG strategy and management, the Board of Directors is responsible for coordinating the comprehensive implementation of the Group's ESG initiatives. It formulates policies and strategies for ESG management, reviews progress towards achieving established objectives, and identifies, assesses, and manages ESG-related risks and opportunities. The Board of Directors continuously and dynamically assesses the synergy and alignment between the Group's sustainable development strategies and corporate development goals. It proactively optimises and adjusts ESG management policies and strategies to ensure that the Group's ESG practices remain relevant and aligned with the evolving landscape of sustainability.

董事會作為公司 ESG 策略及管理的最高權責機構，負責統籌本集團 ESG 管理工作的全面部署，制定 ESG 管理方針與策略，檢討目標達成情況，識別、評估和管理 ESG 風險和機遇。董事會持續動態識別本集團可持續發展策略及進展與企業發展戰略的協同與一致性，並及時優化調整 ESG 管理方針及策略，確保本集團開展的 ESG 管理實踐與時俱進。

The Board of Directors regularly receives reports on the progress of achieving the ESG goals set by the Group. It reviews the advancement of key objectives regarding material issues and their catalytic effect on the business operations, and puts forward improvement suggestions, thereby driving the continuous enhancement of ESG performance.

董事會定期聽取本集團已訂立的 ESG 目標達成進展方面的匯報，對重要性議題關鍵目標的進展及對業務的促進作用進行審閱、提出改進意見，推動 ESG 績效表現持續提升。

In 2024, the significant ESG matters deliberated and decided upon by the Board of Directors included:
2024 年，經董事會審議及決策的重大 ESG 事項包括：

Deliberating the materiality analysis outcomes and confirming this year's material issues

審議重要性議題分析結果，確認本年度重要性議題

Monitoring the progress of ESG-related initiatives within XLX Group

監督心連心集團 ESG 相關工作進展

Reviewing and approving the final draft of the ESG report

審議 ESG 報告終稿

This report provides a detailed disclosure of the progress and achievements of XLX Group's ESG efforts in 2024. The draft was reviewed by the Board of Directors on March 28, 2025, and the final version was reviewed and approved by each director prior to its release.

本報告詳盡披露心連心集團 2024 年 ESG 工作進展與成效。初稿於 2025 年 3 月 28 日由董事會審議，終稿於發佈前由各董事審閱通過。

Letter from the Chairman

董事長致辭



Looking back on 2024, the global economic landscape was in a state of flux. The intertwined complex situation of slowing growth and diverging inflation trends prevailed. Amidst such challenges, the agricultural and basic chemical sectors actively explored paths forward in the wave of transformation. XLX Group remains steadfast in its commitment to its original aspirations. Leveraging a forward-looking strategic framework and robust technological innovation, we have navigated market cycles with resilience. Our commitment to sustainable development is deeply ingrained in our corporate strategy and operations through the ESG principles. This approach not only aims to create long-term value for our stakeholders but also contributes meaningfully to a better world.

回首 2024 年，全球經濟格局風雲變幻，在增速放緩與通脹分化交織的複雜態勢下，農業與基礎化工領域也在變革浪潮中積極探索前行之路。心連心集團始終堅守初心，憑藉前瞻的戰略佈局與科技創新實力以穩健步伐穿越市場週期，並積極踐行可持續發展理念，將環境、社會與管治（ESG）深度融入企業戰略與運營的每一個環節，為利益相關方創造長期價值，為構建更加美好的世界貢獻力量。

With integrity as our compass and compliance as our anchor, we navigate with steadfast resolve toward sustainable excellence.

Guided by our core values of “Integrity, Ethical Excellence, Focused Innovation, and Pursuit of Excellence”, the Group is committed to advancing the strategic development pillars of “Efficiency, Premium, and Quality-Driven Growth”. By optimizing corporate governance and ESG frameworks, strengthening internal controls and risk management, enhancing corporate culture, and fostering transparent stakeholder engagement, we are solidifying the foundation for sustainable development.

With low-carbon principles as our framework and green innovation as our vanguard, we pioneer a future of pristine sustainability.

Anchored in the philosophy of “Maximizing Social Value with Minimal Resources”, our Group has embedded energy efficiency and environmental stewardship into every operational layer. Through continuous optimisation of production processes, we rigorously control energy consumption and pollutant emissions. Driven by circular economy principles, we pioneer resource recycling models to elevate utilisation efficiency, achieving systematic reduction, safe treatment, and value recovery of industrial waste.

With innovation as our vanguard and quality as our benchmark, we forge ahead with unrelenting progress.

The Group upholds the “XLX Spirit” of “Dedicated to hard work, Satisfy the needs of others”. Focusing on customers, we boost investment in environmental protection technology R&D and innovation, and strengthen diversified development in technology, products, marketing, and services. Meanwhile, we enhance product quality through lean management and strict safety governance, and advocate responsible marketing. By deeply engaging in clients' business, offering tailored services, and cultivating strategic partnerships, we drive shared value creation, where customer success propels mutual growth.

**合規為繩，誠信為秤，
我們行穩致遠。**

本集團秉承「誠信、厚德、專注、卓越」的企業核心價值觀，圍繞「高效、高端、高質量」的戰略發展主線，優化公司治理與 ESG 治理架構、強化內部控制與風險管理，加強企業文化建設，暢通相關方溝通，築牢企業可持續發展根基。

**低碳為綱，綠色為領，
我們潔淨前行。**

本集團堅持「用最少的社會資源，創造最大的社會價值」，牢固樹立節能降耗與安全環保意識，持續優化生產工藝，嚴控能源消耗與污染物排放；積極推廣資源循環利用模式，提高資源利用效率，努力實現廢棄物的減量化、無害化與資源化處理。

**創新為先，質量為範，
我們精進不休。**

本集團懷揣「自己艱苦奮鬥，滿足別人需求」的「心連心之魂」，以客戶為中心，持續加大環保技術研發與創新投入，強化技術、產品、營銷、服務多元創新發展鏈路。同時，我們精益求精產品質量與安全管控，踐行責任營銷，深度連接、紮根、服務、經營客戶，實現客戶價值創造與企業發展共贏。

**With safety as our bedrock and growth
as our backbone, we rise with unstoppable vitality.**

Upholding our heritage of “Taking Strugglers as the Foundation”, the Group places paramount importance on employee growth and well-being. Through diversified training programmes and career advancement pathways, we promote employees' professional growth while rigorously enforcing a comprehensive safety accountability framework. We create a safe, healthy, equal, and harmonious work environment that enhances our workforce's sense of fulfillment, happiness, and security.

**With collaboration as our propelling wings and
responsibility as our navigational helm, we chart bold
courses through uncharted waters of shared success.**

Guided by the principles of “Integrity and Mutual Trust, Inclusivity and Shared Prosperity” in partnerships, the Group adheres to responsible procurement principles, implementing transparent, green, and localised procurement strategies to empower partners across multiple dimensions. Together, we build a green and sustainable business ecosystem through collaboration. Meanwhile, we are actively engaged in rural revitalisation and social welfare undertakings. We launch a series of public welfare and charity projects to boost agricultural production and increase farmers' income, thus promoting rural economic development and rural revitalisation.

**With our mission as steadfast as a rock and our
willpower forged in hardships, we strive forward
unceasingly, with the aim of bringing a bountiful harvest
to the land and creating a brighter future.**

In the future, the Group will continue to uphold the concept of sustainable development, implement clean and secure production practices, enhance resilience to climate change, increase investment in green innovation, accelerate digital transformation, deepen cooperation, expand social responsibility initiatives, and promote the high-quality development of both the Group and the industry. Guided by the “XLX Spirit”, we are resolute in shouldering onerous tasks and surmounting formidable challenges. Moreover, we will collaborate intensively to forge a brighter future.

**安全為根，成長為幹
我們蓬勃向上。**

本集團傳承「以奮鬥者為本」的用人理念，高度重視員工的成長與福祉，提供多元化的培訓與職業發展機會，嚴格落實安全生產責任制，營造安全、健康、平等、和諧的工作環境，提升員工獲得感、幸福感和安全感。

**協同為翼，責任為舵，
我們乘風破浪。**

本集團踐行「誠信互信，包容共好」的合作理念，遵循負責任採購理念，推行陽光採購、綠色採購與本地化採購，多方面賦能夥伴發展，協同構建綠色、可持續的商業生態圈。同時，我們積極投身於鄉村振興與社會公益事業，開展系列公益慈善項目，助力農業增產增收，促進農村經濟發展與鄉村振興。

**使命如磐，砥礪前行，
為了大地的豐收，為了明天更美好。**

未來，本集團將繼續秉持可持續發展理念，踐行潔淨安全生產，提升應對氣候變化韌性，加大綠色創新投入，加快數字化轉型，深化合作，拓展社會責任實踐，推動企業和行業高質量發展。我們將在「心連心之魂」指引下，勇挑重擔、攻堅克難，共創美好明天！

Stepping into XLX Group

走進心連心集團

ABOUT XLX GROUP

關於心連心集團

China XLX Fertiliser Ltd., founded in July 2006 and listed on the Hong Kong Stock Exchange in December 2009 (Stock Code: 1866), is a large-scale coal-chemical conglomerate integrating R & D, production, sales, and services. XLX Group operates four major production bases in Henan, Xinjiang, Jiangxi, and Guangxi, establishing itself as a top-tier urea enterprise in China, recognised for unparalleled single-site scale and superior unit product profitability. The Group's product portfolio is diversified, encompassing urea, compound fertilisers, methanol, DMF, melamine, liquid ammonia, automotive urea solution, pharmaceutical intermediates, and more. This extensive range of products, combined with a solid brand reputation and broad market base, positions XLX Group strongly in the industry.

中國心連心化肥有限公司成立於 2006 年 7 月，於 2009 年 12 月在香港聯合交易所上市（股票代碼：1866），是一家集研發、生產、銷售、服務為一體的大型煤化工集團。本集團擁有河南、新疆、江西、廣西四大生產基地，是國內單體規模和單位產品盈利能力一流的尿素企業，涵蓋尿素、複合肥、甲醇、DMF、三聚氰胺、液氨、車用尿素溶液、醫藥中間體等相關差異化產品，擁有良好的品牌美譽度和市場基礎。

Four Production Bases of XLX Group

心連心集團四大生產基地



Xinxiang Base 新鄉基地

Located in Xinxiang Economic Development Zone, Henan Province
位於河南省新鄉經濟開發區

Build an economic and chemical industry park featuring multiple ends, green environmental protection, high efficiency and energy conservation
打造一頭多尾、綠色環保、高效節能的循環經濟化工園區

Jiangxi 江西基地

Located in Jishan Industrial Park, Jiujiang City, Jiangxi Province

位於江西省九江市礪山工業園區

Build a smart and modern coal chemical production base with leading techniques in environmental protection and excellent profitability

打造環保領先、盈利能力一流的智能化現代煤化工生產基地



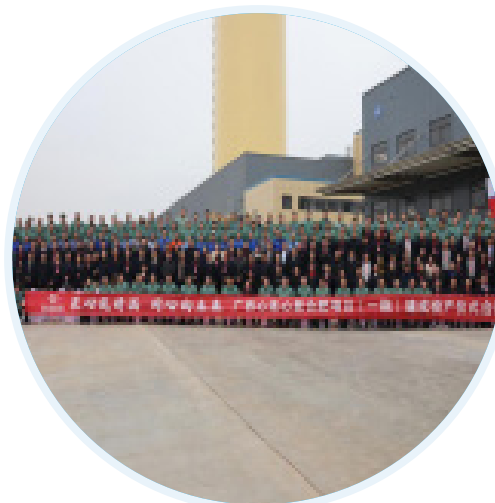
Xinjiang Base 新疆基地

Located in the Taxi River Industrial Park, Baojiadian Town, Manas County, Changji Prefecture, Xinjiang Uygur Autonomous Region

位於新疆維吾爾自治區昌吉州瑪納斯縣包家店鎮塔西河工業園區

It endeavours to build a green production base with high resource conversion, industrial chain synergy and unique product features

打造高資源轉化、產業鏈協同、產品特色突出的綠色生產基地



Guangxi Base¹ 廣西基地¹

Located in Guiping New Materials Industrial Park, Guigang City, Guangxi Zhuang Autonomous Region

位於廣西壯族自治區貴港市桂平新材料產業園

Make itself a demonstration base with the highest competitiveness in South and Southwest China

打造華南、西南區域最具競爭力的標杆示範基地

¹ The Guangxi XLX production base's first phase of the compound fertiliser project was put into operation on 26 December 2024, with a designed annual production capacity of 300,000 tons. The overall plan includes a variety of products such as synthetic ammonia, urea, and compound fertilisers.

¹ 心連心廣西生產基地一期複合肥項目已於 2024 年 12 月 26 日投產，設計產能 30 萬噸 / 年，整體規劃包括合成氨、尿素、複合肥等多種產品。



Brand Matrix of XLX Group
心連心集團品牌矩陣

The Group adheres to the development strategy of “Integrated Cost Leadership and Diversified Competition”. By ensuring stable raw material supply and effective cost control, XLX Group extends its product chain into downstream new-energy and new-material sectors while diversifying within the coal-chemical industry. This strategy aims to enhance product added value and corporate competitiveness, with the vision of becoming the most respected fertiliser enterprise group in China.

本集團堅持「總成本領先、差異化競爭」的發展戰略，保障原材料供應穩定與成本控制，向下游新能源、新材料等產品鏈延伸，向煤化工相關多元化方向發展，提升產品附加值與企業競爭力，致力於成為中國最受尊重的化肥企業集團。

Relying on advanced technologies and scientific management practices, XLX Group implements a dual-driven strategy for fertilisers and chemicals, making parallel progress in both agricultural and industrial sectors. This approach facilitates efficient resource integration and sustainable development. XLX Group actively participates in domestic and international industry associations and exhibitions to stay attuned to customer demands. By benchmarking against industry-leading enterprises, the Group continuously optimises and iterates its product performance and lifecycle management, thereby strengthening the global competitiveness of its products.

本集團憑藉先進技術與科學管理，秉持化肥化工雙輪驅動戰略，在農業與工業領域齊頭並進，實現資源高效整合與可持續發展。同時，本集團積極參與國內外行業協會及展會，及時獲知客戶核心訴求，對標行業領先企業，對產品核心效能及產品生命週期管理進行反復優化運算，持續加深產品全球競爭力。

CORPORATE CULTURE

企業文化

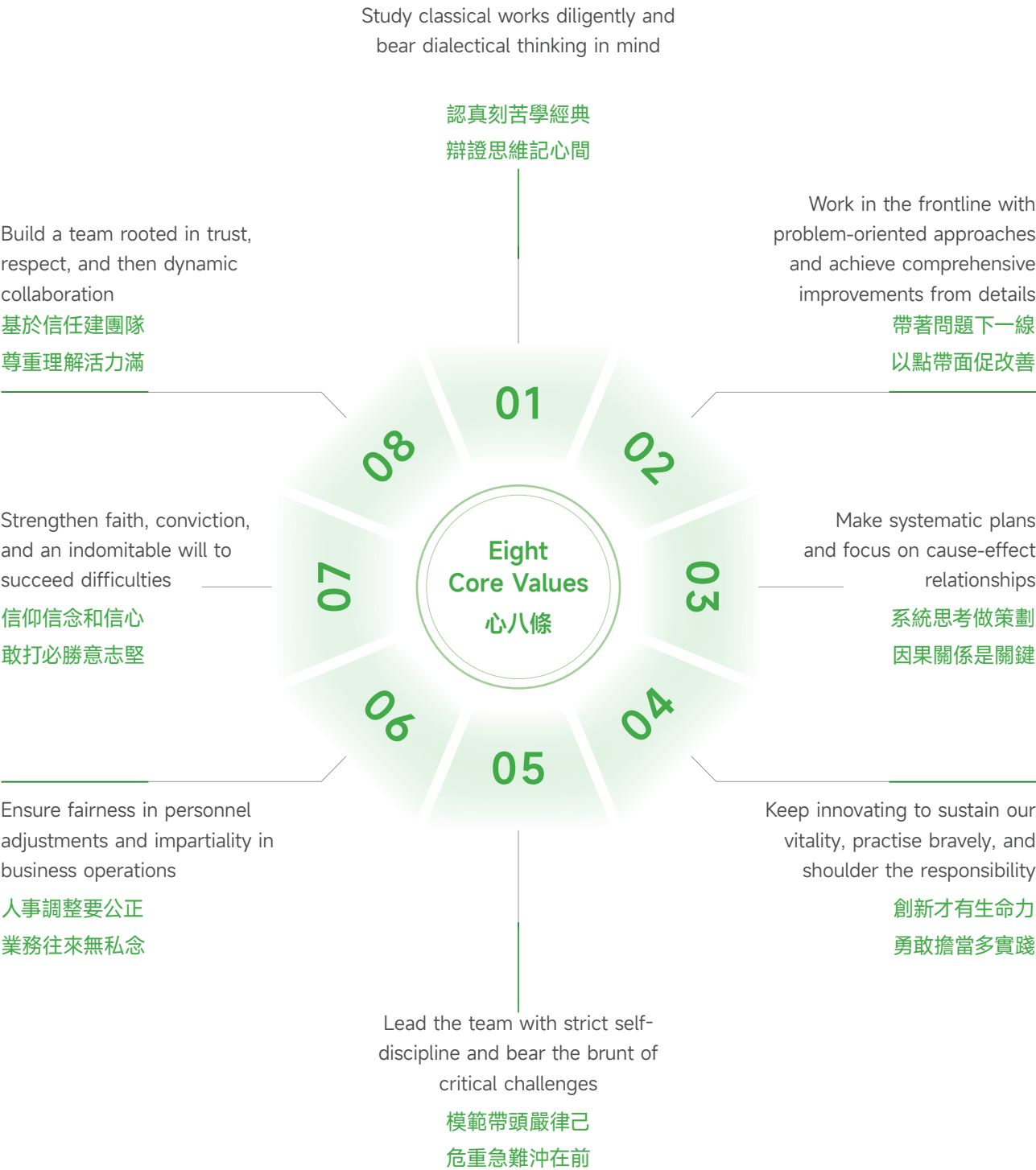
XLX Group's corporate culture centers on integrity, emphasizing a people-oriented and customer-centric approach. The Group is committed to continuous innovation, strict management, and strong social responsibility. Its dedication lies in creating maximum social value with minimal resources, fostering the common development of the enterprise and all stakeholders, and contributing to building a better future.

心連心集團以誠信為企業文化核心，強調以人為本，以客戶為中心，注重持續創新，嚴格管理制度，強化社會責任與擔當，致力於用最少的資源為社會創造最大的價值，實現企業與各利益相關方的共同發展，為實現更美好的明天貢獻力量。



XLX Group Corporate Culture
心連心集團企業文化

The “Eight Core Values” of XLX Group 心連心集團「心八條」



ANNUAL MAJOR HONOURS AND RECOGNITION

年度主要榮譽

In recent years, XLX Group has maintained continuous communication with government bodies, industry associations, research institutions, media, and other stakeholders, fostering good relationships and jointly promoting the positive development of the fertiliser industry. The Group has been honoured with numerous accolades, including Top 100 Enterprises in China's Fertiliser Industry, Environmental and Social Responsibility Enterprise, National-level Green Factory, Golden Reputation Enterprise for Agricultural Services in China, Top 10 Supply Chain Management Enterprises in China's Petrochemical Industry, Top 500 Private Manufacturing Enterprises in China.

In 2024, the Group won prestigious awards in branding, manufacturing, research and development, and sustainable development, earning market and industry recognition for its achievements across various fields and at multiple levels.

近年來，心連心集團持續同政府、行業協會、研究機構、媒體等相關方開展溝通，保持良好關係，共同推動化肥行業向好發展，先後被評為中國化肥行業 100 強、環境社會責任企業、國家級「綠色工廠」、中國農化服務金口碑企業、中國石化行業供應鏈管理十佳企業、中國民營企業製造業 500 強等多項榮譽。

2024 年，本集團在品牌、製造、研發及可持續發展等領域榮獲多項權威獎項，贏得市場與業界對於我們在各領域、多層面發展所取得成果的認同與讚譽。

Awards and Honours (Partial) 獎項和榮譽(部分)

CORPORATE NAVIGATION 公司領航力



China XLX Fertiliser ranked 86th in the "Top 500 Petroleum and Chemical Enterprises by Revenue 2024 (Comprehensive Category)"
中國心連心化肥榮登「2024 石油和化工企業銷售收入前 500 家（綜合類）」第 86 名



China XLX Fertiliser ranked among the "Top 50 Small-Cap Enterprises in Hong Kong Stocks 2024"
中國心連心化肥榮登「2024 年港股小型企業 50 強」榜單



Henan XLX was ranked 4th in "Top 100 Fertiliser Enterprises in China 2024"
河南心連心入選「2024 中國化肥企業 100 強」榜單，排名第 4 位



Henan XLX ranked 411th in "China's Top 500 Manufacturing Enterprises 2024"
河南心連心入選「2024 中國製造業企業 500 強」榜單，排名第 411 位



Henan XLX was selected for "2024 Henan Leading Goose Enterprises"
河南心連心入選「2024 年河南省頭雁企業」名單



Xinjiang Black was listed in the "Top 50 specialised Fertiliser Enterprises" and "Top 10 Fertiliser Synergist Enterprises"
新疆黑色分別入選「2024 中國特種肥料企業 50 強」「2024 中國肥料增效劑十佳企業」榜單

TECHNOLOGICAL PIONEERING 技術領創力



Henan XLX was listed on the “2023 National Technology Innovation Demonstration Enterprises”
河南心連心上榜「2023 年國家技術創新示範企業」名單



Henan XLX was selected for the “2024 Henan Chief Data Officer Pilot Program”
河南心連心上榜「2024 年河南省企業首席數據官試點」名單



Henan XLX was recognised in “2024 Henan Industrial Data Element Application Scenarios”
河南心連心上榜「2024 年河南省工業領域數據要素典型應用場景」名單



Henan XLX was ranked in “2023 China Top 100 Intelligent Factories”
河南心連心入選「2023 年第二屆中國標杆智能工廠百強榜」榜單



Jiangxi XLX was listed as “Potential Unicorn Enterprise” in Jiangxi Province
江西心連心入選為江西省「潛在獨角獸企業」



Shenleng Energy was certified as a “2024 Henan Provincial Intelligent Workshop”
深冷能源上榜「2024 年河南省智能車間」名單



Shenleng Energy’s QC project “Reducing Inspection Time for CO₂ Tankers” won the Gold Award at the 49th ICQCC
深冷能源「降低電子級 CO₂ 重車的檢驗時長」QC 成果在第 49 屆國際質量管理小組會議 (ICQCC) 中獲國際金獎



Intelligent Equipment Company’s Coal Dust Separation System was designated as an Industry Best Practice
智能裝備公司研發生產的粉煤分離設備被評定為行業優秀範例



Xinjiang XLX was awarded the “2024 China Nitrogen Fertiliser Industry Association Science & Technology First Prize”
新疆心連心榮獲 2024 年「中國氮肥工業協會科學技術一等獎」



Xinjiang XLX was awarded the “2023 Xinjiang Autonomous Region Science & Technology Progress First Prize”
新疆心連心斬獲新疆維吾爾自治區 2023 年度「科技進步獎一等獎」

SUSTAINABILITY LEADERSHIP 可持續發展領導力



China XLX Fertiliser was awarded “Environmental Performance Rating: Class A Enterprise”

中國心連心化肥獲評「環保績效評價 A 類企業」



China XLX Fertiliser received a Huazheng ESG BBB Rating

中國心連心化肥獲得華證指數 ESG 評級 BBB



Henan XLX was recognised as one of the first-batch “Super Energy Efficiency Factories” in Henan Province

河南心連心榮膺河南省首批「超級能效工廠」



Henan XLX (Ammonia, Urea) and Jiangxi XLX (Ammonia, Methanol, Urea) were listed in the “2023 Energy Efficiency Leaders”

河南心連心（合成氨、尿素）、江西心連心（合成氨、甲醇、尿素）被授予「2023 年度重點行業能效領跑者標桿企業」



Urea and Humic Acid Urea produced by Henan XLX were certified as “Petrochemical Green Products”

河南心連心生產的尿素、含腐殖酸尿素兩款產品被評定為「石油和化工行業綠色產品」



Compound Fertiliser, Base Fertiliser, Water-Soluble Fertiliser, and Specialty Fertiliser (four products of Henan XLX) were awarded “Eco-Friendly Products”

河南心連心生產的複肥、基礎肥料、水溶性肥料、新型肥料四款產品被評定為「環保生態產品」



Xinjiang XLX was awarded the “2023 Energy Conservation Advanced Unit in the Nitrogen Fertiliser and Methanol Industry”

新疆心連心獲「2023 年度氮肥、甲醇行業節能減排先進單位」榮譽稱號



The case of “Green Low-Carbon Transformation in Coal Chemical Industry” was selected in the National Carbon Peak & Neutralisation Casebook

「綠色低碳轉型助力煤化工行業高質量發展」的典型經驗入選國家《碳達峰碳中和案例選》

EXECUTIVE STEWARDSHIP 管理層領袖力



Chairman Liu Xingxu was awarded the honorary title of “Xinxiang Philanthropist”
董事長劉興旭被授予「新鄉慈善家」榮譽稱號



General Manager Zhang Qingjin was granted the “Henan Provincial Special Allowance”
總經理張慶金獲河南省特殊津貼



General Manager Zhang Qingjin was honoured as “Henan Model Worker 2024”
總經理張慶金被授予 2024 年河南省「勞動模範」榮譽稱號



Shang Dewei, Deputy Secretary of the Party Committee and General Manager of Jiangxi XLX, received the “Jiangxi May 1st Labour Medal”
黨委副書記、江西心連心總經理尚德偉被授予江西省「五一勞動獎章」



Zhang Guangrui, Deputy Leader of the Guangxi Project Preparation Team, was awarded the “Guangxi Model Worker”
廣西項目籌備組副組長張廣瑞被授予廣西壯族自治區「勞動模範」

BUSINESS PERFORMANCE 經濟績效

2024

Operating income
營業收入

23,128.29 million yuan
百萬元

Total assets
總資產

32,518.24 million yuan
百萬元

Basic earnings per share
基本每股收益

120.05 RMB cents per share
每股人民幣分

Net profit attributable to shareholders of the Group
歸屬於上市公司股東的淨利潤

1,459.45 million yuan
百萬元

Equity attributable to the parent company
歸屬於母公司權益

8,961.17 million yuan
百萬元

Diluted earnings per share
攤薄每股收益

117.63 RMB cents per share
每股人民幣分

XLX Group's Corporate Philosophy of Compliance-Driven Operations and Integrity

合規運營 誠信心連心

XLX Group is firmly committed to the principle of integrity and rigorously adheres to compliance-oriented operations and business ethics. Through continuous optimisation of corporate governance structures and enhancement of ESG management mechanisms, we ensure transparent stakeholder communication and engagement. With efficient and accountable governance practices, XLX Group drives sustainable development while delivering resilient, long-term value for all stakeholders.

心連心集團恪守誠信理念，嚴格遵從合規運營與商業道德，持續優化公司治理架構，完善 ESG 管理機制，暢通利益相關方溝通，以高效、負責任的治理支撐企業可持續發展，為各利益相關方創造穩健、長期價值。

SDGs Addressed in this Chapter:

本章所回應的 SDGs:



Major Material Topics of Sustainability Covered in this Chapter:

本章所涉及的重大可持續發展議題:

- ◆ Corporate Governance
公司治理
- ◆ Compliance-Driven Operations and Risk Management
合規運營與風險管理
- ◆ Business Ethics and Anti-Corruption
商業道德與反貪腐
- ◆ Information Security & Privacy Protection
信息安全與隱私保護
- ◆ Stakeholder Communication
利益相關方溝通



Corporate Governance

公司治理

XLX Group is dedicated to integrating the concept of sustainability into corporate operations and management. We strengthen compliance operations, optimise the structure of our Board of Directors and specialised committees, and enhance the operational efficiency of the Board. Furthermore, the Group maintains good communication with investors and safeguards the rights and interests of stakeholders through transparent communication and voluntary disclosure.

心連心集團致力於將可持續理念融入企業經營與管理，強化合規運作，優化董事會及專門委員會架構，提升董事會運行效率；同時，本集團通過雙向透明溝通與自願披露的方式，與投資者保持良好交流，維護利益相關者權益。

GOVERNANCE STRUCTURE AND MECHANISM

治理架構和機制

China XLX Fertiliser strictly complies with relevant laws and regulations such as the Company Law of Singapore, the Corporate Governance Code for Listed Companies, and the Main Board Listing Rules of the Hong Kong Stock Exchange. We also adhere to regulatory documents and stock exchange requirements. We continuously improve a series of internal governance systems, including our Articles of Association. A governance structure is established, consisting of the General Meeting of Shareholders, the Board of Directors and its subordinate committees, the management, and the operating levels. This structure has a clear hierarchy, well-defined powers and responsibilities, and standardised processes, providing a strong safeguard for the stable development of the enterprise and effectively protecting the legitimate rights and interests of the Group and its shareholders.

中國心連心化肥嚴格遵守《新加坡公司法》《上市公司治理準則》《香港聯交所主板上市規則》等相關法律法規、規範性文件和交易所要求，持續完善公司章程等一系列內部治理制度，構建由股東大會、董事會及其下屬委員會、管理層、經營執行層構成的定位清晰、權責明確、流程規範的治理架構，為企業穩健發展、切實保障本集團和股東的合法權益提供有力保障。





Governance Structure of China XLX Fertiliser 中國心連心化肥治理架構

China XLX Fertiliser elects directors in strict accordance with the director selection procedures specified in Constitution of the Company. We adhere to a diversity policy including but not limited to aspects such as gender, age, cultural and educational background, professional experience, skills, knowledge, and past achievements. This ensures the diversity, breadth, and professionalism of its members and their viewpoints. Moreover, continuous attention is paid to the proportion of female and independent directors on the Board.

We appoint independent directors in line with relevant laws, regulations, and regulatory requirements, and pay their allowances according to the standards approved by the shareholders' meeting. We actively provide each board member with ongoing training, such as integrity, standardised operation, and information disclosure, to ensure that corporate governance proceeds in a compliant and orderly manner.

* For details regarding corporate governance, information about board members, and performance-linked compensation, please refer to the 2024 Annual Report of China XLX Fertiliser.

中國心連心化肥嚴格按照《公司憲章文件》規定的董事選聘程序選舉董事，秉持多元化政策，包括但不限於性別、年齡、文化及教育背景、專業經驗、技能、知識及過往成績等，確保成員及其觀點的多樣性、全面性與專業性，並持續關注女性董事及獨立董事在董事會中的佔比。

我們根據相關法律法規及監管要求聘任獨立董事，根據股東大會批准的標準向獨立董事發放獨立董事津貼。我們積極向各董事會成員提供持續培訓，如廉潔從業、規範運作、信息披露等，以確保公司治理合規有序進行。

* 有關公司治理相關情況、董事會成員詳細信息以及薪酬績效等，請參閱中國心連心化肥 2024 年年度報告。

Performance 績效

In 2024, the Group 2024 年, 本集團



had **4** independent directors, accounting for **57%** of all board members

獨立董事 **4** 人, 佔比: **57%**



had **1** female director, representing **14%** of the total

女性董事 **1** 人, 佔比: **14%**



Among the board members, **3** have industry experience, **2** have risk management experience, and **2** have financial management experience

董事會中 **3** 名董事擁有行業經驗, **2** 名董事擁有風險管理經驗, **2** 名董事擁有財務管理經驗



In terms of governance activities, the General Meeting of Shareholders was convened **4** times, Board of Directors' meetings were held **10** times, and various committee meetings took place **7** times

股東大會會議召開 **4** 次, 董事會會議召開 **10** 次, 各委員會會議召開 **7** 次

PROTECTION OF INVESTORS' RIGHTS AND INTERESTS

投資者權益保護

China XLX Fertiliser is dedicated to establishing an open, transparent, and interactive investor relations management system. We have developed the External Information Disclosure Management Process for Listed Companies and instituted a comprehensive investor relations maintenance mechanism. This ensures comprehensive, timely, and transparent communication and interaction with investors, analysts, and the media. The Group places a strong emphasis on protecting the legitimate rights and interests of shareholders and investors, particularly small and medium-sized shareholders.

中國心連心化肥致力於打造開放、透明、互動的投資者關係管理體系, 制定《上市公司對外信息披露管理流程》, 構建完善的投資者關係維護流程, 與投資者、分析師及媒體保持充分、及時、透明的溝通與交流。本集團高度重視保護股東、投資者, 特別是中小股東、投資者的合法權益。

The Group actively engages with the capital markets through diverse means, including Earnings Announcement Conferences, Investor Roadshows, Institutional Investor Strategy Meetings, Reverse Roadshows, Investor Reception Days, and Routine Investor Relations Maintenance. We are committed to actively disclosing and updating our operating conditions to the capital market, comprehensively listening to investors' opinions and suggestions, promptly responding to investors' demands, and strengthening effective communication with investors.

本集團採取業績發佈會、路演活動、機構投資者策略會、反向路演活動、投資者接待日、基礎性維護工作等方式，積極向資本市場披露、更新本集團經營情況，並全方位聽取投資者意見建議，及時回應投資者訴求，加強與投資者有效溝通。



Reverse Roadshow at Xinjiang Base in July 2024
2024年7月新疆基地反向路演



The Third General Meeting of Shareholders and Reverse Roadshow at Henan Base in 2024
2024年第三次股東大會暨河南基地反向路演

Performance 績效

In 2024, the Group 2024年, 本集團



organised **4** large-scale public communication meetings for investors

舉辦投資者大型公開交流會 **4** 場



attended **13** institutional investor strategy meetings

參加機構投資者策略會 **13** 次



hosted investor reception days **twice**

組織投資者接待日活動 **2** 次



published a total of **82** documents on the Stock Exchange's website

在聯交所網站上共發佈 **82** 份文件



carried out more than **100** online, offline and reverse roadshow activities

開展線上、線下及反向路演活動共計 **百餘** 場

Compliance and Risk Management

合規與風險管理

XLX Group continuously enhances its compliance and risk control system. We incorporate ESG risks into overall risk management, reinforce internal control, prevent and mitigate risks, and spare no effort to ensure the compliant and stable operation of our group. Furthermore, the Group takes “integrity” as the core of its corporate culture and integrates it into corporate operation and management as well as employees’ code of conduct. Through a high-standard business ethics management system, we restrict the behaviors of employees, suppliers, and other partners, fostering a clean and fair business environment. In 2024, we did not engage in any violations such as those related to business ethics and unfair competition.

心連心集團持續完善合規風控體系，將 ESG 風險納入整體風險管理，強化內部控制，防範化解風險，全力保障企業合規穩健運營。同時，本集團把「誠信」作為文化核心，融入到企業的經營管理和員工的行為準則中，以高標準的商業道德管理體系約束員工、供應商及其他合作夥伴的行為，打造廉潔、公平的營商環境。2024 年，本集團未發生違反商業道德和不當競爭等違規行為。

COMPLIANCE AND RISK MANAGEMENT SYSTEM

合規與風險管理體系

Based on the requirements of the Basic Standards for Internal Control of Enterprises and its supporting guidelines, and in combination with the key risk areas of its major business processes, XLX Group has formulated multiple compliance and risk management systems, including the Internal Audit Management Regulations, the Corporate Compliance and Integrity Management Measures, and the Group Litigation Management Procedures. The Group has clearly defined risk management objectives, principles, the organisational system, management processes, oversight and improvement, culture building, and assessment methods. By doing so, we form a closed-loop for compliance and risk management work, safeguarding the long-term and stable operation of the Group.

心連心集團依據《企業內部控制基本規範》及各配套指引的要求，結合自身主要業務流程的關鍵風險領域，制定了《內部審計管理制度》《公司廉潔從業管理辦法》《集團訴訟管理辦法》等多項合規與風險管理制度。本集團明確風險管理目標與原則、組織體系、管理流程、監督改進、文化建設與考核等內容，形成合規與風險管理工作閉環，保障本集團長效穩健運行。

The Group has established a Board-led organisational system for compliance and risk management, which conducts top-down comprehensive management and leadership over internal compliance and risk management. In line with our business management and operational practices, we collect, identify, assess, respond to, monitor, and provide early warnings for potential risks. We have also formed a regular emergency reporting mechanism for major special risks and significant matters.

本集團建設由董事會領導的合規與風險管理組織體系，由上至下對本集團內部合規與風險治理進行全面的管理和領導。我們根據自身業務管理和運營實踐，對潛在風險進行收集、識別、評估、應對、監控及預警，並形成定期的重大專項風險及重大事項應急匯報機制。

Compliance and Risk Management Framework and Supervision Mechanism of XLX Group
心連心集團合規與風險管理架構與監督機制

Level 層級	Role 角色	Main responsibilities 主要職責
Board of Director 董事會	Highest decision-making body 最高決策機構	<p>Bears overall responsibility for the Group's compliance and risk management. 對本集團合規與風險管理負全面責任。</p> <p>Assesses and defines the types and levels of risks that the Group can tolerate to achieve its strategic objectives. 評估、明確實現本集團戰略目標可承受的風險類型和程度。</p> <p>Reviews the effectiveness of the compliance and risk management system and the internal control system. 審閱合規與風險管理體系及內部監控系統有效性。</p>
Audit Committee 審核委員會	Oversight and safeguarding 監督保障	<p>Reviews the effectiveness of risk management and internal control systems, including ESG risks. 審查包含 ESG 風險在內的風險管理和內部監控系統有效性。</p> <p>Conducts a detailed assessment of key internal controls such as operational, compliance, and IT controls. 對營運、合規和信息技術監控等主要內部控制進行細緻評估。</p> <p>Provides professional advice on compliance and risk management. 為合規與風險管理提供專業意見。</p>
Senior management 高層管理人員	Management 管理層	<p>Continuously conducts risk assessment and analysis, formulates implementation plans, monitors processes, and reports to the Audit Committee and the Board of Directors. 持續開展風險評估與分析、擬定執行方案、監管流程並向審核委員會和董事會彙報。</p> <p>Establishes a compliance management system, formulates compliance policies and procedures, and cultivates a compliance culture. 建立合規管理體系、制定合規政策與流程、培育合規文化。</p>
Audit & Compliance Department 審計合規部	Third line of defence 第三道防線	<p>Responsible for reviewing compliance audits and inspections of the Group's business activities, identifying and assessing potential risks, promoting the improvement of the compliance system and the implementation of risk prevention and control measures, and upholding the compliance baselines. 負責審查本集團業務活動合規性審計與檢查，識別、評估潛在風險，推動合規制度完善與風險防控措施落地，堅守合規底線。</p>

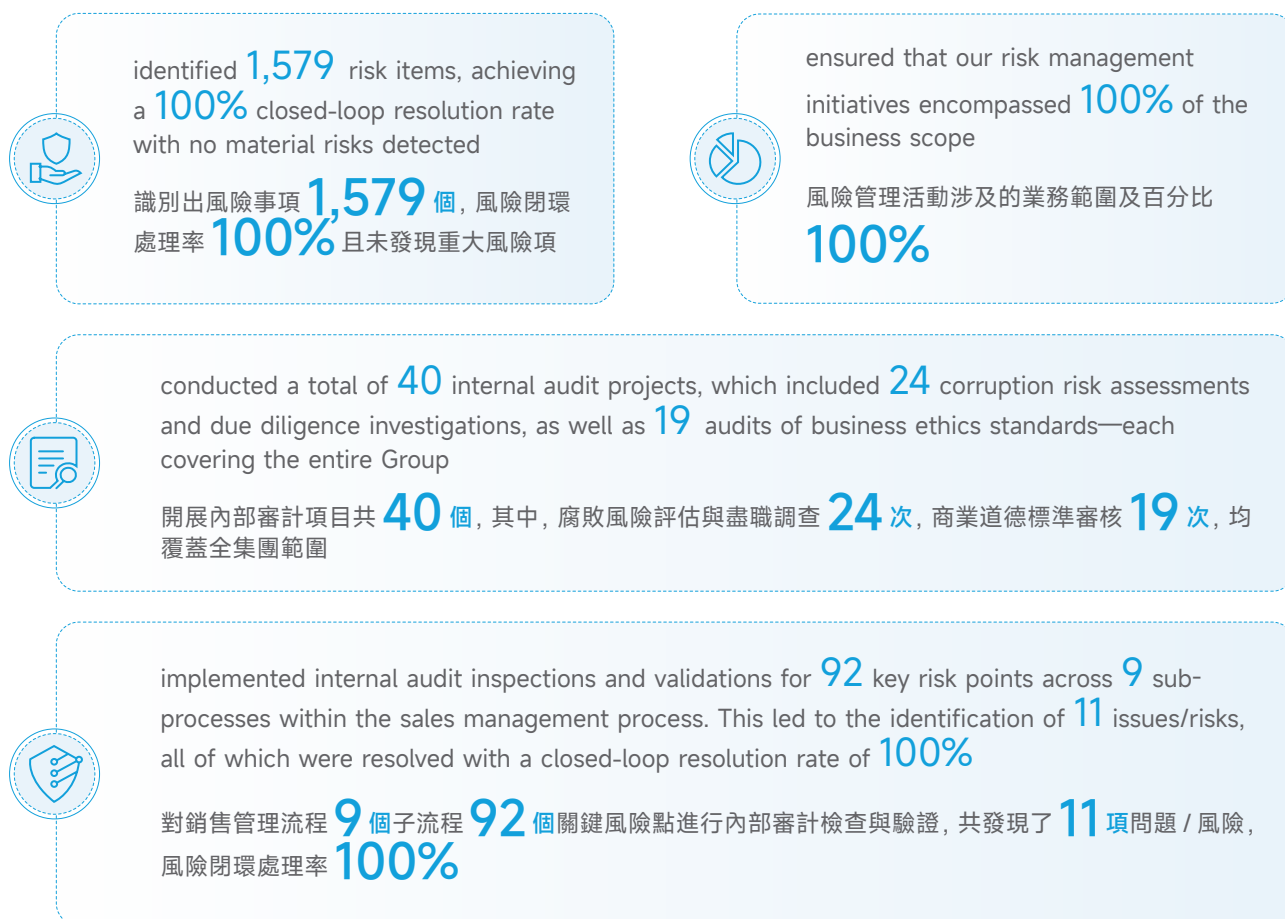
Level 層級	Role 角色	Main responsibilities 主要職責
Functional Departments 各職能部門	Second line of defence 第二道防線	Responsible for risk-control projects and legal compliance work, providing oversight during critical phases such as construction and bidding, assisting and supervising business units in effectively managing risks while empowering their operational efforts. 負責風控項目與法務合規工作，在施工、招標等環節監督，助力並監管業務開展風險管理，並賦能業務。
Business Departments 各業務部門	First line of defence 第一道防線	Responsible for identifying and evaluating the business risks of their respective departments, implementing risk response measures, providing timely feedback on risk developments, and collaborating to improve the risk control system to ensure compliance and orderly business operations. 負責識別、評估本部門業務風險，執行風險應對措施，及時反饋風險動態，協同完善風險管控體系，保障業務合規、有序運行。

The Group has developed a comprehensive compliance risk map tailored to its unique business characteristics. This map encompasses 7 overarching categories along with 17 sub-categories of potential risks, including Business Registration & Intellectual Property, Labour & Employment, Tax & Finance, Customer Rights Protection, Cybersecurity, Competition & Monopoly, and Contractual Obligations. In 2024, we introduced XLX Group Compliance Management Negative List. This list spans 7 functional modules, namely corporate management, labour union activities, human resources management, information technology management, legal oversight, procurement management, and financial capital management, enumerating 64 prohibited actions designed to mitigate or avert potential risks. Furthermore, in 2024 we conducted thorough internal risk assessments or special audits across our primary value chain. This included evaluations of related-party transactions, futures trading activities, cash flow projects as well as procurement processes, sales operations, inventory control, expense management, pricing strategies and their execution status, and import/export activities. We also carried out inspections to verify the implementation status of identified improvement areas.

本集團根據自身業務特性繪製企業合規風險地圖，涵蓋企業註冊與知識產權、勞動與僱傭、稅務與財務、客戶權益保護、網絡安全、競爭與壟斷、合同共 7 大類 17 小類風險源。2024 年，我們制定了心連心集團合規管理負面清單，涵蓋企業管理、工會工作、人力資源管理、信息化管理、法務管理、採購管理、財務資金管理 7 大職能模塊、64 項嚴禁事項，以規避或減輕相關風險發生。2024 年，我們對關聯方交易、期貨交易、現金流項目、採購管理、銷售管理、存貨及費用管理、價格管理及執行情況、進出口業務等主價值鏈進行內部全面風險排查或專項審計，並就需改進事項的執行情況進行檢查驗證。

Performance 績效

In 2024, the Group 2024 年, 本集團



BUSINESS ETHICS AND ANTI-CORRUPTION

商業道德與反貪腐

XLX Group strictly adheres to relevant laws, regulations, and standards, including the Anti-Money Laundering Law of the PRC, the Anti-Unfair Competition Law of the PRC, the Anti-Monopoly Law of the PRC, and the Interim Provisions on Prohibition of Commercial Bribery. To uphold these standards, we have established comprehensive systems and guidelines such as the Corporate Integrity Compliance Guidelines and XLX Group Accountability System with Fault-Tolerant Governance. The Group consistently adheres to the principle of integrity in all its business transactions and maintains a zero-tolerance stance towards any form of non-compliant behavior, including bribery, corruption, extortion, embezzlement, and money laundering.

心連心集團嚴格遵循《中華人民共和國反洗錢法》《中華人民共和國反不正當競爭法》《中華人民共和國反壟斷法》《關於禁止商業賄賂行為的暫行規定》等法律法規與規範要求, 制定《公司廉潔從業管理辦法》《心連心集團工作責任追究與容錯免責制度》等相關制度準則, 規範員工及供應商等合作方行為。本集團在所有商業往來中始終秉持誠信經營的理念, 對任何形式的賄賂、腐敗、敲詐勒索、貪污和洗黑錢等不合規行為均採取零容忍態度。

The Group has been continuously enhancing its anti-corruption governance efforts by establishing and further refining its institutional framework, conducting thorough investigations into complaint cases, and promoting integrity through training and awareness campaigns. Furthermore, we have been consistently improving our internal control measures to jointly uphold an environment of integrity and self-discipline within our operations. We have implemented a business ethics management system. The Audit Committee, which directly leads this system, is responsible for the continuous supervision, review, and assessment of our business ethics initiatives. As a member of the China Enterprise Anti-Fraud Alliance, we steadfastly uphold the integrity-based business philosophy and actively engage in the Alliance's anti-fraud initiatives.

Key personnel in critical functions such as technology, sales, procurement, and finance within the Group are required to sign and file an Integrity Commitment. Should there be any significant changes in the internal or external environment, the Group will assess integrity risk factors and subsequently develop, sign, and file a new Integrity Commitment. The Group continuously monitors employee compliance with the Integrity Commitment. In addition to facing penalties for violations, the actions of offenders will be documented in their personal integrity files and shared with partner organisations within the Alliance. Thus, this ensures effective implementation of the Group's integrity standards.

The Group regularly conducts training sessions on business ethics for all employees, including temporary workers and contractors. These sessions cover anti-bribery, anti-corruption, anti-extortion, anti-fraud, and anti-money laundering topics. Through case studies, we aim to deepen employees' understanding of ethical boundaries in business practices. Moreover, the Group emphasises military training and discipline development. New employees undergo a one-month closed military training programme prior to commencing their roles, while all employees participate in annual military training. This initiative not only enhances physical fitness but also fosters a culture of strict discipline among our workforce.

本集團持續加大反貪腐治理力度，從制度體系建設及完善、投訴案件調查、廉潔宣貫與培訓等多個維度構築防線，持續完善內部控制措施，共同維護廉潔自律的經營環境。我們建立由審計委員會直接領導的商業道德管理體系，對商業道德工作進行持續監督、審核與評估。我們作為中國企業反舞弊聯盟成員單位，始終堅守誠信經營理念，積極參與聯盟反舞弊行動。

本集團技術、銷售、採購、財務等關鍵業務人員需簽訂廉潔從業承諾書並存檔，若內外部環境發生變化，我們審查廉潔風險因素後制定、簽署並存檔新承諾書。我們對員工廉潔從業承諾書遵循情況進行持續跟進，違規者除接受處罰，其行為還會記入個人誠信檔案，與反腐敗聯盟企業共用，以此確保廉潔從業承諾切實落實。

本集團面向全體員工（包括臨時工和承包商）定期開展商業道德（含反賄賂、反貪腐、反勒索、反欺詐及反洗錢等）文化宣貫，通過案例學習，全面深化員工商業道德紅線意識。此外，本集團推行軍訓與紀律作風建設，新員工進行為期1個月的崗前對閉式軍訓，所有員工每年參加1次軍訓，增強身體素質的同時培養員工鐵的紀律。

Performance 績效

In 2024, the Group 2024 年, 本集團



conducted **3** specialised business ethics training sessions, incorporating anti-corruption measures, with an average training duration of **4.5** hours per capita and **100%** coverage across all employees, including part-time staff

開展商業道德（含反貪腐）專項培訓 **3** 次，人均商業道德培訓時長 **4.5** 小時，董事、管理層及員工覆蓋率為 **100%**



performed **4** integrity inspections, resulting in **0** corruption litigation cases and zero business ethics accountability incidents

開展廉潔從業檢查 **4** 次，貪污訴訟案件數為 **0** 次，未發生商業道德問責事件



ensured no legal proceedings were concluded during the year related to embezzlement by the Group or its employees

因公司或其員工貪污並已審結的法律訴訟 **0** 次

FAIR COMPETITION

公平競爭

XLX Group strictly complies with relevant laws, regulations, and standards, including the Anti-Unfair Competition Law of the PRC and the Model Provisions on Protection Against Unfair Competition. We are committed to integrating the principle of fair competition into every facet of our corporate development. We actively foster fair and transparent cooperation mechanisms with our upstream and downstream partners and determine pricing based on market dynamics. Through these efforts, we ensure that the interests of all parties are reasonably protected.

心連心集團嚴格遵守《中華人民共和國反不正當競爭法》《反不正當競爭保護示範規定》等法律法規及相關標準，將公平競爭原則融入企業發展的每一個環節，積極與上下游夥伴建立公平透明的合作機制，依據市場規律定價，確保各方利益得到合理保障。

CONFLICT OF INTEREST MANAGEMENT

利益衝突管理

XLX Group places great emphasis on conflict of interest management and has set up a comprehensive mechanism for identification, assessment, and response. The Group demands that employees proactively disclose any potential conflict of interest situations in activities such as related-party transactions and business collaborations. We carry out a strict review process to precisely evaluate the potential impact of these conflicts on the Group's interests. Once a conflict of interest is detected, we immediately take effective measures, such as reassigning positions or having employees abstain from decision-making. This safeguards the legitimate rights and interests of shareholders, customers, and partners, and maintains a fair and equitable market competition environment.

心連心集團高度重視利益衝突管理，建立了完善的識別、評估與應對機制。本集團要求員工在涉及關聯交易、商業合作等活動中，主動申報可能存在的利益衝突情況。我們通過嚴格的審查流程，精準評估潛在衝突對本集團利益的影響程度。一旦發現利益衝突，我們立即採取調整崗位、迴避合夥決策等有效措施，保障股東、客戶和合作夥伴的合法權益，維護公平公正的市場競爭環境。

TAX COMPLIANCE

稅務合規

XLX Group strictly complies with relevant tax laws and regulations in our operating and listing locations, including the Tax Collection and Administration Law of the PRC and the Enterprise Income Tax Law of the PRC. We adhere to the principles of integrity and transparency, actively promote tax self-inspection, pay taxes in accordance with the law, fulfill our tax obligations, continuously enhance tax management, avoid tax risks, and ensure tax compliance. We actively support the implementation of government tax policies, transparently pay taxes to local governments as required by law, and report and disclose tax information in accordance with legal requirements.

The Group strengthens internal management by establishing and improving internal audit systems, enhancing financial management, standardizing reimbursement practices, and avoiding false accounts. These actions aim to improve internal governance and ensure tax compliance. In addition, we focus on promoting a culture of tax compliance within the organisation. This is achieved through activities such as tax compliance publicity, building communication platforms, and offering rewards for compliance, all of which help to raise awareness of tax compliance. In 2024, we did not engage in any tax non-compliance incidents such as tax evasion, tax fraud, tax leakage, or tax resistance.

心連心集團嚴格遵守《中華人民共和國稅收徵收管理法》《中華人民共和國企業所得稅法》等運營地和上市地相關稅務法律法規，秉持誠信、透明的原則，積極推動稅務自查工作，依法納稅，履行稅收責任，不斷加強稅務管理，規避稅務風險，確保稅務合規。我們積極配合政府稅收政策的實施，依法透明向當地政府繳納稅收，並依法上報、披露稅務信息。

本集團加強內部管理，包括建立健全內部審計制度、完善財務管理制度、規範報銷管理、避免虛假賬目等，提高內部管理水平，保證稅務合規。此外，我們重視稅務合規文化建設，如開展稅務合規宣傳、搭建稅務合規交流平臺、制定稅務合規獎勵等，提高稅務合規意識。2024年，本集團未發生逃稅、偷稅、漏稅與抗稅等稅務違規事項。

WHISTLEBLOWER PROTECTION MECHANISM

舉報保護機制

XLX Group encourages all employees and stakeholders to report potential or existing violations of conduct, either anonymously or under their real names. In line with XLX Group Complaint and Whistleblowing Policy with Reward System, we have established a reward and punishment mechanism for reporting such incidents. For reports concerning unethical or illegal business practices, such as issues related to integrity, bribery, corruption, unfair competition, or the unauthorised disclosure of the Group's commercial or technical secrets, the Group will provide appropriate rewards to whistleblowers upon verification. Furthermore, if individuals who have committed violations voluntarily report others involved in similar misconducts, we will consider mitigating or exempting their penalties based on the circumstances. XLX Group has set up real-name and anonymous reporting channels. We keep whistleblowers' identities confidential and ensure their safety legally, so they won't be threatened or harmed in their rights and interests. This is how we maintain a fair and just market environment.

心連心集團鼓勵全體員工及其他利益相關方對潛在或已發生的違規違紀行為進行實名或匿名舉報申訴，並依《心連心集團投訴舉報及獎勵制度》設置舉報獎懲機制。針對舉報任何與誠信、賄賂腐敗、不公平競爭、洩露本集團商業或技術秘密等不正當或不法從業行為，一經查證屬實，本集團將根據具體情況給予舉報人員一定的獎勵；對於違規違紀人員主動檢舉揭發同類案件人員的情況，我們將視情況給予減輕或免於處罰。我們設立實名及匿名舉報渠道，對舉報者的身份保密，依法確保舉報者的安全，不使舉報者受到威脅或權益損害，全力維護公平公正的市場環境。

Complaint and Reporting Channels 投訴與舉報途徑



Audit Committee Reporting Email: xlx01866@chinaxlx.com.hk
審計委員會舉報專用郵箱: xlx01866@chinaxlx.com.hk



General Manager's Confidential Mailbox: HNXLXZJL@163.com
總經理信箱: HNXLXZJL@163.com



Corporate Complaint Hotline: 0373-5592888-8107
公司投訴電話: 0373-5592888-8107



Labour Union Chairperson Hotline: 13598668063
公司工會主席電話: 13598668063



Audit & Compliance Department Manager Direct Line: 15993050356
審計合規部經理電話: 15993050356

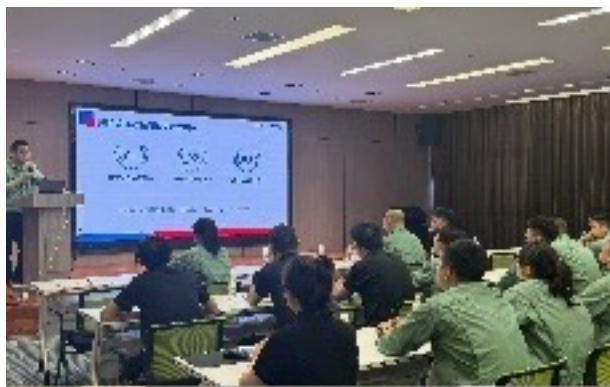
COMPLIANCE AND RISK MANAGEMENT CULTURE DEVELOPMENT 合規與風險管理文化建設

XLX Group actively promotes compliance and risk management culture, deepening employees' risk and compliance awareness. This encourages employees to voluntarily follow internal control requirements, understand their job responsibilities, and actively identify potential issues and risks. The Group regularly holds compliance risk training sessions and external exchange activities. In 2024, we recorded and uploaded the Compliance Risk Training programme to our online academy for employee access. The training content covers various legal risks, including business registration, intellectual property rights, labour and employment, taxation and finance, contracts, competition and monopoly issues, network security, and customer rights protection.

心連心集團積極開展合規與風險管理文化建設，讓風險與合規意識深入人心，促使員工自覺遵循內控要求，熟悉崗位職責，主動發現問題與風險。本集團定期開展合規風險培訓與對外交流活動，2024 年錄製並上傳《合規風險培訓》課程至網絡學院供員工學習，培訓內容涉及企業註冊與知識產權、勞動與僱傭、稅務與財務、合同、競爭與壟斷、網絡安全、客戶權益保護等法律風險。

In 2024, the Group conducted 8 compliance training sessions, totaling 12 hours. All employees required to attend completed the training, achieving a 100% participation rate. To strengthen the legal awareness of sales personnel, support their compliance, and enhance their business and risk management skills, we conducted specialised compliance risk training for sales staff, covering legal knowledge, business risks, and professional integrity.

2024 年，本集團舉辦了 8 場合規性培訓，累計培訓時長達 12 小時，實際參與培訓的員工人數佔需參加培訓的總人數比例為 100%。為增強銷售人員的法律意識，助力員工遵守合規標準並提升業務水平和風險管理能力，我們還開展了涵蓋法律常識、業務風險、職務廉潔等方面的銷售專項合規風險培訓。



Compliance and Risk Management Training



合規與風險管理培訓

Information Security and Privacy Protection

信息安全與隱私保護

XLX Group continuously enhances its information security management system. We actively implement requirements and processes for data management, network security, personal information protection, and customer privacy. We have also established a robust internal control review mechanism for information security compliance and developed a closed-loop control model for managing data security throughout its entire life cycle. These efforts are aimed at preventing data leakage risks and strengthen the foundation for the Group's safe development. In 2024, we did not experience any major information security incidents or customer data breaches.

心連心集團不斷完善信息安全管理體系，積極落實數據管理、網絡安全、個人信息與客戶隱私保護等相關工作要求和治理流程，建立健全信息安全合規內控審查機制，構建數據安全全生命週期閉環管控模式，全方位預防數據洩露風險，築牢企業安全發展根基。2024年，本集團未發生重大信息安全事故及客戶隱私洩露事件。

MANAGEMENT SYSTEM

管理體系

XLX Group strictly complies with various laws and regulations, including the Cybersecurity Law of the PRC, the Data Security Law of the PRC, and the Personal Information Protection Law of the PRC. In alignment with ISO/IEC 27001 information security management standards, we have developed and implemented internal information management policies such as the Corporate Confidentiality Management Procedures, Information Security Management Regulations, and Cybersecurity and Information Security Administrative Measures. These policies establish a comprehensive management and confidentiality system. They also set up an organisational structure with an assessment mechanism and a security incident response mechanism. This ensures full - process control over the Group's information systems.

心連心集團嚴格遵守《中華人民共和國網絡安全法》《中華人民共和國數據安全法》《中華人民共和國個人信息保護法》等法律法規，參照 ISO/IEC 27001 信息安全管理標準，制定並執行《公司保密管理程序》《信息安全管理制度》《網絡與信息安全管理辦法》等內部信息管理政策，構建管理與保密體系、組織架構及考核機制、安全事件回應機制，全流程管控信息系統。

China XLX Fertiliser has appointed a Data Protection Officer (DPO) pursuant to Singapore's statutory requirements, with the mandate to coordinate data security management. We have also set up a dedicated information security department and team to coordinate and implement information security initiatives. We actively conduct security level protection classifications, managing them in line with the relevant requirements for information security registration and protection. The Group's newly constructed data center is designed, built, and managed in full compliance with Class B requirements outlined in the Design Code for Electronic Information System Rooms. It also meets Grade 3 standards specified in the Information Security Technology—Baseline for Classified Protection of Cybersecurity. Furthermore, Henan XLX has successfully completed Grade 2 Cybersecurity Classified Protection Filing and has achieved certification under GB/T 23001 for the Integration of Informatisation and Industrialisation Management System.

中國心連心化肥依據註冊地相關法規要求設立數據保護官統籌管理數據安全工作。同時，我們設立專業的信息安全管理部門與團隊負責協調與落地信息安全管理工作。我們積極開展安全等級保護定級，參照相關信息安全等級保護要求進行管理。本集團新建機房按照《電子信息系統機房設計規範》B級、《信息安全技術網絡安全等級保護基本要求》三級要求統一建設與管理。河南心連心完成二級信息系統安全等級保護備案，獲得 GB/T 23001 信息化和工業化融合管理體系認證。

SAFEGUARD MEASURES

保障措施

The Group uses a variety of mature information security technologies and products, in line with the principle of defense in depth. This strategy enables the implementation of various security functions, including identity authentication, access control, data integrity, and data confidentiality across multiple layers, thereby establishing an effective security technology protection framework. In 2024, the Group completed a three-year plan for information security and privacy protection and launched 10 enhancement projects related to information and data security. These projects include network security architecture design and management, strengthening access controls for core applications, and terminal data leakage prevention. As a result, we have elevated the security levels of critical applications while further improving our ability to monitor and safeguard information security across various business processes.

本集團綜合利用各種成熟的信息安全技術與產品，採用縱深防禦的原則，實現不同層次的身份鑒別、存取控制、數據完整性、數據保密性、數據異地備份等安全功能，以建立有效的安全技術防護體系。2024 年，本集團完成信息安全與隱私保護 3 年規劃制定，並開展了包括網絡安全架構設計與管理、核心應用存取控制加強、終端數據防洩漏等 10 個信息與數據安全提升項目，將關鍵應用的安全性提升至更高水平，進一步加強公司各業務環節信息安全監控、防護能力。

The Group conducts regular comprehensive assessments of information security risks. We evaluate potential losses alongside risks and control measures while quantifying risks through standard procedures to mitigate threats effectively and adapt to business changes. In 2024, we identified a total of 10,863 medium-to-low-risk vulnerabilities, with no high-risk vulnerabilities identified and a 100% rectification completion rate.

本集團定期全面評估信息安全風險，評估並綜合考量潛在損失、風險及控制措施，用標準程序量化風險、明確級別，以防控風險、適應業務變化。2024 年，本集團共識別出 10,863 個中低風險漏洞，未發現高風險漏洞，整改完成率為 100%。

Additionally, we have developed a data leakage emergency response plan that includes regular emergency drills for security incidents. This ensures employees are aware of emergency protocols and helps maintain business continuity. To address safety risks comprehensively, we conduct internal audits along with external third-party assessments. These assessments cover all aspects related to the Group's network information system's safety. In 2024, we executed two independent third-party system information security inspections as well as one cybersecurity incident simulation.

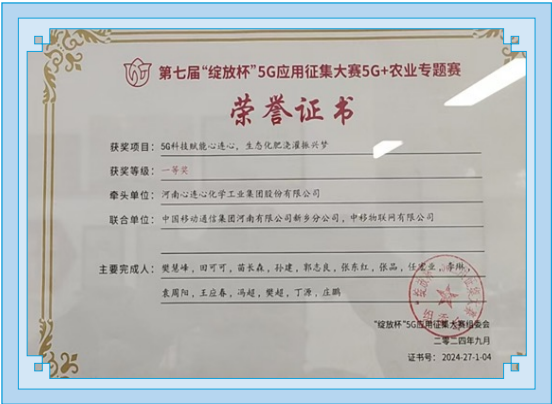
本集團制定數據洩露應急預案，定期開展安全事件應急演練工作，加強應急預案的宣貫與落實，保證業務連續性。同時，本集團通過內審及外部第三方審計及時排查處置安全隱患和管理漏洞，覆蓋包括與集團網絡信息系統安全有關的所有範疇。2024年，本集團開展2次獨立第三方系統信息安全檢查，開展網絡安全事件演練1次。

The Group mandates all employees to receive education or training on information security and privacy protection, covering the Group's network and information security strategy, security responsibilities, security management rules and regulations, and relevant laws and regulations. Furthermore, in order to legally protect both the Group's interests and its employees' rights, we require confidentiality agreements with all staff members. In 2024, the signing rate for these agreements reached a 100%.

本集團要求所有員工必須接受包括集團網絡與信息安全性原則、安全職責、安全管理規章制度和法律法規在內的信息安全與隱私保護教育或培訓。此外，為維護本集團與雇員的合法權益，我們與所有員工簽訂保密協議。2024年，本集團《保密協議》簽訂率達100%。

Major Honours
主要榮譽

Henan XLX won the First Prize in the 5G+ Agriculture Track of the 7th "Blooming Cup" 5G Application Competition
河南心連心榮獲第七屆「綻放杯」5G應用徵集大賽5G+農業專題賽一等獎



Henan XLX won awarded the Second Prize in the Modern Agriculture Track of the 2024 "Data Element X" Competition (Henan Sub-Competition)
河南心連心榮獲2024年「數據要素X」大賽河南分賽現代農業賽道二等獎



Sustainable Development Management

可持續發展管理

XLX Group places a strong emphasis on ESG management. Through the establishment of a robust ESG governance structure, the formulation of strategic ESG plans and objectives, and active engagement in communication and collaboration with various stakeholders, we continuously enhance our ESG performance. This includes effectively managing our material issues and other key ESG work matters.

心連心集團高度重視 ESG 管理，通過搭建 ESG 管治架構、制定 ESG 戰略規劃與目標、積極開展與各利益相關方的溝通與合作，不斷完善自身重要性議題管理等各項 ESG 工作事宜。

ESG VALUE CONCEPT

ESG 價值理念

XLX Group is guided by the mission and vision of “bringing a bountiful harvest to the land” and “creating a brighter future”. We embrace principles such as “creating value for customers” and “people-oriented, integrity-driven, and win-win” approaches. With a strong emphasis on green and sustainable development, we actively fulfill our social responsibilities. Through ongoing innovation and optimised management practices, we strive to maximise social value with minimal resources. Our commitment is to become the most respected fertiliser enterprise group in China.

心連心集團以「為了大地的豐收」「為了明天更美好」為企業使命與願景，秉承「為客戶創造價值」「以人為本，誠信共贏」等理念，注重綠色發展和可持續發展，積極履行社會責任，通過持續創新和優化管理，專注於用最少的資源為社會創造最大的價值，致力於成為中國最受尊重的化肥企業集團。





ESG Value Model of XLX Group 心連心集團 ESG 價值模型

ESG GOVERNANCE STRUCTURE

ESG 治理架構

XLX Group fully incorporates the concept of sustainable development into its corporate operations and overall strategy. Guided by a scientific development outlook, we have established a comprehensive framework that spans from top-level design to grassroots-level implementation. By optimizing our governance structure, refining management mechanisms, innovating work processes, and enhancing the quality of information disclosure, we have embedded sustainability principles into every aspect of our business operations. This approach lays a strong foundation for the Group's sustainable development initiatives.

In 2024, members of the ESG-related working group engaged in various activities, including ESG risk identification, studying and sharing exemplary ESG cases from peer enterprises, organizing internal ESG training sessions, and participating in external ESG training programmes. These initiatives were aimed at ensuring the continuous update and expansion of our knowledge in ESG management. Notably, the Board of Directors participated in sustainable development-related training once and attended two external exchange activities focused on sustainable development.

心連心集團將可持續發展融入企業運營與整體戰略，以科學發展觀為指引，搭建從頂層設計到基層執行的完整體系。我們通過優化治理架構、完善管理機制、革新工作流程、提升信息披露質量，將可持續理念納入各個業務環節，為本集團可持續發展夯實基礎。

2024 年，ESG 相關工作組成員開展了 ESG 風險識別、同行優秀企業 ESG 案例學習與分享、組織 ESG 內部培訓、參加外部 ESG 培訓等工作，以確保對 ESG 管理知識的持續更新與擴充。其中，董事會參與可持續發展相關培訓 1 次，參與可持續發展相關外部交流活動 2 次。



ESG OBJECTIVES

ESG 目標

XLX Group aligns with China's Carbon Peaking and Carbon Neutrality Goals, the 14th and 15th Five-Year Plans, and the 17 UN Sustainable Development Goals (SDGs). We have conducted a comprehensive assessment of our operational environment, industry characteristics, and stakeholder expectations. Based on this, we have developed and published the "Triple One Strategy" (2025-2027), which includes various sustainability commitments and objectives, along with incentive mechanisms matching our strategic goals. This enhances our sustainability management. We also aim to boost the fertiliser industry's low-carbon, green, and sustainable development. Our key ESG actions align closely with relevant SDGs. For detailed objectives and progress, please refer to each chapter.

我們結合國家雙碳目標、「十四五」與「十五五」規劃和聯合國 17 項可持續發展目標，綜合本集團運營環境、行業特性及各利益相關方訴求，制定並發佈包括諸多可持續發展相關承諾與目標的「三一」規劃（2025-2027）以及與戰略目標相配套的激勵政策，致力於持續提升本集團可持續發展管理水平，為化肥行業低碳、綠色、可持續發展貢獻力量。我們的 ESG 關鍵行動契合 SDGs 相關目標，具體目標設定與進展請詳見各章節內容。

STAKEHOLDER COMMUNICATION


利益相關方溝通

XLX Group places significant emphasis on understanding and addressing the expectations and demands of our stakeholders. Guided by the principles of integrity, interaction, equality, and transparency, we have established internal guidelines, including XLX Group Hospitality Management Guidelines and the Rationalisation Proposal Management Guidelines, to standardise and enhance our communication with stakeholders. We implement diverse initiatives to strengthen both regular and ad-hoc communication with stakeholders. This proactive approach enables us to systematically improve our ESG performance. We also effectively address the needs and concerns of all parties involved. Our goal is to foster harmonious and mutually beneficial relationships among all stakeholders associated with XLX Group.

心連心集團高度重視利益相關方的期望及訴求，堅持誠信、互動、平等、透明的原則，制定《心連心公司接待管理辦法》《合理化建議管理辦法》等內部文件規範與利益相關方常態化溝通。我們通過多舉措加強與利益相關方進行定期、不定期溝通交流，有針對性地提升本集團 ESG 表現，有效回應各方需求與關切，努力實現本集團各利益相關方和諧共贏。

Stakeholder Communication Mechanism of XLX Group
心連心集團利益相關方溝通機制

Stakeholders 利益相關方	Demands and expectations 訴求與期望	Communication method 溝通方式	Form of response 回應形式
 Customers 客戶	Integrity in contract performance 誠信履約 Product performance and safety 產品效能與安全 Service quality improvement 提高服務質量 Complaint handling 意見投訴與處理 Circular economy 循環經濟	Official website, social media platforms and WeChat Official Account 官網、社交平臺和公眾號 Customer visits or receptions 客戶拜訪或來訪 Customer satisfaction surveys 客戶滿意度調研 Customer service hotlines 客戶服務熱線 Daily communication 日常事務溝通	Product R&D and innovation 產品研發與創新 Sound service network 健全服務網絡 Innovative service models 創新服務模式 Ensuring safety 築牢安全底線 Customer service hotlines 客服熱線 Questionnaires 問卷調查 Complaint handling mechanisms 投訴處理機制
 Dealers/Service Providers and Other Partner 經銷商 / 服務商等合作夥伴	Integrity in contract performance 誠信履約 Win-win collaboration 協作共贏 Industry development 行業發展 Risk prevention and control 風險防控	Strategic cooperation 戰略協作 Training empowerment 培訓賦能 Field visits 實地考察 Regular visits 定期走訪	Serious contract performance 認真履約合同 Enhanced operational risk management 加強運營風險管理 Strategic cooperation enhancement 加強戰略合作 Industry standard setting 行業標準制定
 Suppliers 供應商	Integrity in contract performance 誠信履約 Multi-party empowerment 多方賦能 Sustainable purchasing 可持續採購 Product quality and safety 產品質量與安全	Supplier visits or receptions 供應商拜訪或來訪 Supplier meetings 供應商會議 Official website, social media platforms and WeChat Official Account 官方、社交平臺和公眾號 Daily communication 日常事務溝通	Sincere cooperation 真誠合作 Responsible procurement and regular monitoring 負責任採購與定期監察 Open communication channels 暢通的溝通渠道

Stakeholders 利益相關方	Demands and expectations 訴求與期望	Communication method 溝通方式	Form of response 回應形式
 <p>Shareholders/ Investors 股東 / 投資者</p>	<p>Integrity in operation 誠信經營</p> <p>Stable and sustainable investment returns 穩健與可持續的投資回報</p> <p>Controllable risks 風險可控</p> <p>Protection of shareholders' rights and interests 保障股東權益</p> <p>Information disclosure 信息公開</p>	<p>General meeting of shareholders 股東大會</p> <p>Regular reports and announcements 定期報告及公告</p> <p>Communication meetings 交流會議</p> <p>Official website, social media platforms and WeChat Official Account 官網、社交平臺和公眾號</p> <p>Roadshow activities 路演活動</p>	<p>Stable and compliant operations 穩健合規運營</p> <p>Comprehensive risk management 全面風險管理</p> <p>Multiple measures to achieve performance growth 多舉措實現業績增長</p> <p>Dynamic multi-channel communication 多渠道動態溝通</p> <p>Open and transparent information disclosure 公開透明的信息披露</p>
 <p>Employees and Trade Union Organisations 員工及工會組織</p>	<p>Rights and interests guarantee, equal opportunities 權益保障 平等機會</p> <p>Improved salary and welfare benefits 完善薪酬福利待遇</p> <p>Career development and promotion 職業發展與晉升</p> <p>Occupational health and safety 職業健康與安全</p>	<p>Employee representative meetings 員工代表會議</p> <p>Internal meetings 內部會議</p> <p>Employee training 員工培訓</p> <p>Employee satisfaction surveys 員工滿意度調查</p> <p>Performance evaluations 績效評估</p> <p>Employee opinion feedback platforms 員工意見反饋平臺</p> <p>Internal publications 內部刊物</p>	<p>Implementation of fair employment policies 踐行公平用工政策</p> <p>Continuous improvement of salary incentive mechanisms 持續完善薪酬激勵機制</p> <p>Implementation of diverse training 開展多元培訓</p> <p>Healthy work environment 健康的工作環境</p> <p>Considerate humanistic care 體貼的人文關懷</p> <p>Formulation of whistleblower protection measures 制定吹哨者保護辦法</p>

Stakeholders 利益相關方	Demands and expectations 訴求與期望	Communication method 溝通方式	Form of response 回應形式
 Governmental and regulatory authorities 政府及監管機構	Compliant operations 合規經營 Tax payment according to law 依法納稅 Information disclosure 信息公開 Promotion of local economic development 促進當地經濟發展 Fulfillment of corporate social responsibilities 履行企業社會責任	Policy guidance 政策指引 Government meetings 政府會議 Regulatory notices 監管通知 On-site investigations 現場調查 Working reports 工作報告	Regular submission of regulatory reports 定期提交監管報告 Active tax payment and response to national policies 積極納稅及回應國家政策 Hosting of observation meetings 接待觀摩會 Assistance in organizing relevant annual meetings, exchange meetings and industry conferences 協助政府承辦相關年會、交流會與行業會議
 The Public, Communities/ Charity Organisations 公眾、社區 / 公益組織	Focus on charity and welfare 關注公益慈善 Participation in community building 參與社區建設 Promotion of community development 推動社區事業發展 Attention to environmental protection 注重環境保護	On-site visits 現場走訪 Charity activities 慈善活動 Visits to the campus 參訪園區 Official website, social media platforms and WeChat Official Account 官網、社交平臺和公眾號	Provision of local employment opportunities 為當地提供就業機會 Improvement of the imbalance of educational resources 改善教育資源不平衡 Support for rural revitalisation 扶持鄉村振興 Encouragement of employees to participate in volunteer activities 倡導員工投身志願者活動 Opening up of complaint channels 暢通投訴渠道
 Industry Associations/ Academic Institutions 行業協會 / 學術機構	Scientific research innovation 科研創新 Talent cultivation 人才培養 Promotion of industry sustainable development 促進行業可持續發展	Symposiums and presentations 座談會與宣講會 Industry exhibitions 行業展會 Academic cooperation 學術合作	Active participation in lectures and professional associations 積極參與講座和專業協會 Active participation in standardisation organisations 積極參與標準化組織 Cooperation with academic institutions 與學術機構合作

Stakeholders 利益相關方	Demands and expectations 訴求與期望	Communication method 溝通方式	Form of response 回應形式
 Media 媒體	<p>Product responsibility 產品責任</p> <p>Sustainable development performance 可持續發展表現</p> <p>Employees' rights and interests protection 員工權益保障</p> <p>Business performance 經營業績</p> <p>Information openness and transparency 信息公開透明</p>	<p>Press conferences 新聞發佈會</p> <p>Social media platforms 社交媒體平臺</p> <p>Public opinion monitoring 輿情監測</p> <p>Field interviews 實地訪談</p>	<p>Active news reporting and promotion 積極開展新聞報導和宣傳</p> <p>Active participation in themed forums 積極參與主題論壇</p> <p>Opening up of communication channels between the public and the media 暢通公眾與媒體溝通渠道</p>
 Environment 環境	<p>Response to climate change risk 應對氣候變化風險</p> <p>Improvement in resource use efficiency 提升資源使用效率</p> <p>Strengthened management of three wastes 加強三廢管理</p>	<p>Information disclosure 信息公開</p> <p>Visitor receptions 參觀接待</p> <p>Formulation of standards and policies 標準、政策制定</p>	<p>Active energy conservation and emission reduction 積極節能減排</p> <p>Promotion of green manufacturing and operations 倡導綠色製造與運營</p> <p>Implementation of green office practices 推行綠色辦公</p> <p>Continuous innovation 持續創新</p>

ESG MATERIAL ISSUES MANAGEMENT

ESG 重要性議題管理

XLX Group regards the identification, assessment, and analysis of material issues as crucial references for preparing our annual ESG report, establishing ESG management objectives, and managing ESG-related initiatives. We have set up a process for screening, researching, and analysing ESG material issues. This process helps us grasp the issues stakeholders closely watch, offering a reference for effectively tracking ESG issue changes and conducting future ESG management.

心連心集團將重要性議題識別、評估與分析作為本集團編制年度 ESG 報告、制定 ESG 管理目標、管理 ESG 工作的重要參考。我們建立了一套 ESG 重要性議題篩選、調研和分析的流程，了解各利益相關方密切關注的議題，為有效跟蹤 ESG 議題變化及為未來本集團開展 ESG 管理工作提供參考依據。

XLX Group Materiality Assessment Process 心連心集團重要性議題評估流程

Material issues screening 重要性議題篩選

23 ESG issues
23 項 ESG 議題

Refer to international standard frameworks such as the HKEX ESG Code, GRI, SASB, SDGs, UNGC, and IFRS S2
參考聯交所 ESG 指引、GRI、SASB、SDGs、UNGC、IFRS S2 等國際相關標準框架

Benchmark against peer companies for issue identification
對標同行議題識別情況

Consider ESG rating agency recommendations
參照 ESG 評級機構建議

Discussions among relevant personnel within the internal ESG governance structure
由內部 ESG 治理架構相關人員討論

The Group invited internal and external stakeholders to assess issue materiality via online questionnaires. The questionnaire covered 10 stakeholder categories, including company management, employees, government and regulatory bodies, investors/shareholders, customers, suppliers, distributors/service providers and other partners, communities and the public, media, and welfare organisations/associations.

通過線上問卷的形式邀請本集團內外部利益相關方評估議題重要性，問卷調查涵蓋共 10 類利益相關方，包括公司管理層、員工、政府及監管機構、投資者 / 股東、客戶、供應商、經銷商 / 服務商等合作夥伴、社區和公眾、媒體、公益組織 / 協會等。

281 questionnaires
281 份調研問卷

Research on material issues
重要性議題調研

Confirmation of material issues 重要性議題確認

11 high-priority material issues
11 項高度重要性議題

Based on the impact evaluation results of the stakeholder materiality survey, internal and external suggestions for adjusting the materiality of each issue were consolidated. Then, these issues were evaluated and prioritised according to two dimensions: "materiality to external stakeholders" and "materiality to the Group's sustainable development".

基於利益相關方重要性調研的影響評價結果，整合內外部對每個重要性議題的調整建議，根據「對外部利益相關方的重要性」和「對本集團可持續發展重要性」兩個維度進行評估排序。

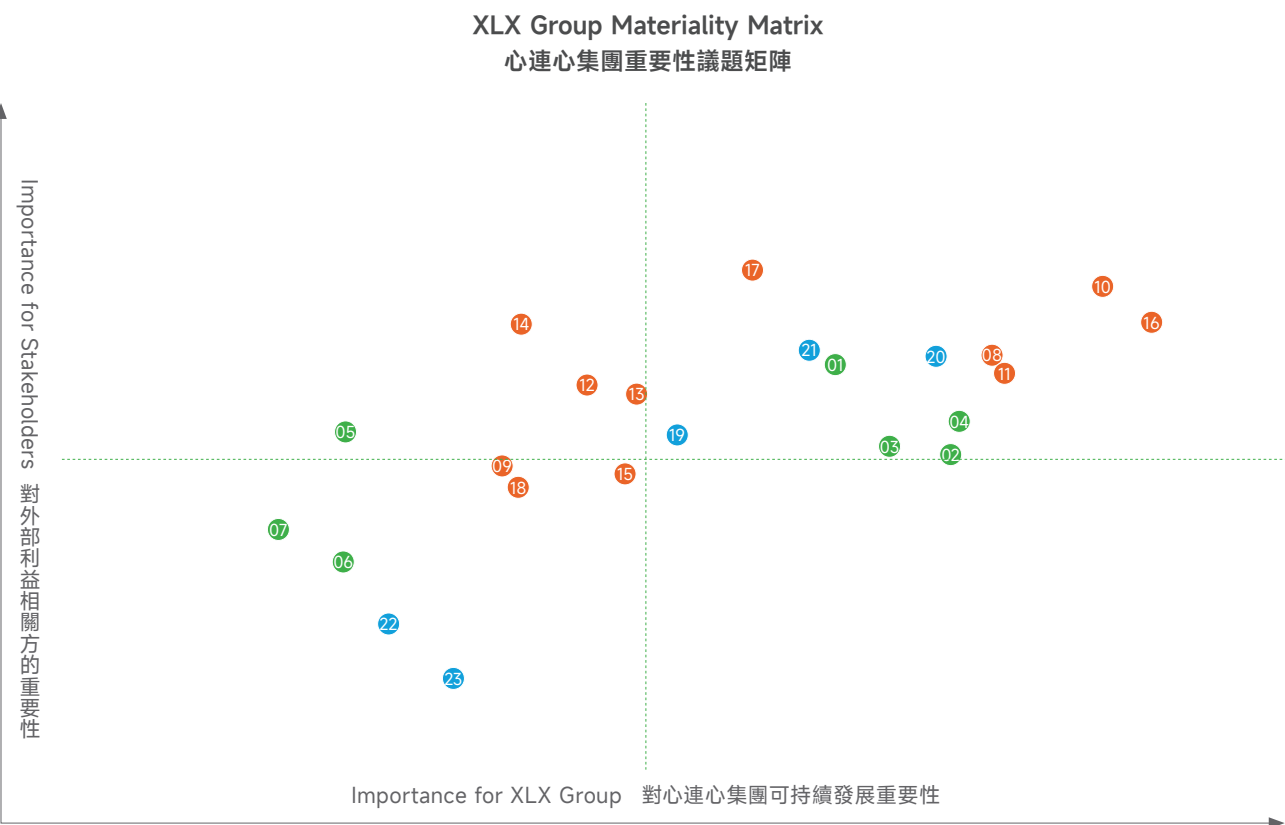
Management reviews the material issue results and submits them to the Board of Directors for examination and approval. These issues are then taken as the priorities for this year's report disclosure.

管理層對重要性議題結果進行審議，並遞交董事會審議通過後作為本年度報告披露重點回應的議題。

Joint deliberation by 7 directors
7 名董事共同審議

Review of material issues
重要性議題審核

Materiality Matrix 重要性議題矩陣



● Environmental 環境責任

- 01. Energy Management and Clean Energy Utilisation
能耗管理與清潔能源利用
- 02. Water Resource Management
水資源管理
- 03. Waste Discharge and Resource Recycling
廢棄物排放與資源循環利用
- 04. Pollutant Management
污染物管理
- 05. Green Products & Packaging
綠色產品與包裝
- 06. Response to Climate Change
應對氣候變化
- 07. Ecology and Biodiversity Protection
生態與生物多樣性保護

● Social 社會責任

- 08. Product and Solution Innovation
產品與解決方案創新
- 09. Intellectual Property Protection
知識產權保護
- 10. Product Quality and Safety
產品質量與安全
- 11. Customer Rights and Interests Protection
客戶權益保護
- 12. Supply Chain Management
供應鏈管理
- 13. Compliance Employment
合規僱傭
- 14. Staff Development and Training
員工發展與培訓
- 15. Employee Rights and Benefits
員工權益與福利
- 16. Occupational Health and Safety Management
職業健康與安全管理
- 17. Chemicals Management
化學品管理
- 18. Community Public Welfare Services
社區與公益

● Governance 管治

- 19. Corporate Governance
公司治理
- 20. Compliance-Driven Operations and Risk Management
合規運營與風險管理
- 21. Business Ethics and Anti-Corruption
商業道德與反貪腐
- 22. Information Security & Privacy Protection
信息安全與隱私保護
- 23. Stakeholder Communication
利益相關方溝通

Based on identified material issues within the matrix, the Group adopts the following strategies:

本集團基於識別的重要性議題所處矩陣位置，分別採取以下策略：

For issues of significant importance to both internal and external stakeholders, we grant them the highest priority in resource allocation and pay close attention to their management.

對內外部利益相關方均非常重要的議題，我們高度重視，給予最高優先順序的資源配置。

1

2

For issues of particular concern to external stakeholders, we maintain ongoing communication with external parties, and keep optimizing and improving our practices to address their concerns.

對外部利益相關方重點關注的議題，我們將與外部相關方持續保持溝通，不斷優化與改進，回應外部相關方的關切。

3

4

For issues closely monitored by internal stakeholders, we continue to pay our attention, execute measures to improve, and foster business development.

對內部利益相關方保持高度關注的議題，我們會持續投入關注，採取改進措施，促進業務發展。

For issues that receive less attention from both internal and external stakeholders, we maintain ongoing monitoring and ensure compliance to avoid penalties and losses.

對內外部利益相關方關注度較低的議題，我們會持續監測，並保持合規，避免處罰損失。



Impacts of Material Issues on Value Chain 重要性議題價值鏈影響

Issue Category 議題類別	Material Issues 重要性議題	Location 回應章節	Supply Chain 供應鏈	Production/ Operations 生產 / 運營	Products 產品	Employees 員工	Social Engagement 社會參與
Environmental 環境	Energy Management and Clean Energy Utilisation 能耗管理與清潔能源利用	Cleaner Production & Low-Carbon 清潔生產	✓	✓	✓	✓	
	Water Resource Management 水資源管理	Cleaner Production & Low-Carbon 清潔生產		✓		✓	
	Waste Discharge and Resource Recycling 廢棄物排放與資源循環利用	Cleaner Production & Low-Carbon 清潔生產		✓	✓	✓	
	Pollutant Management 污染物管理	Cleaner Production & Low-Carbon 清潔生產		✓	✓	✓	
Social 社會	Product and Solution Innovation 產品與解決方案創新	Innovation Leadership and High Efficiency 創新引領	✓	✓	✓	✓	
	Product Quality and Safety 產品質量與安全	Innovation Leadership and High Efficiency 創新引領	✓	✓	✓	✓	
	Customer Rights and Interests Protection 客戶權益保護	Innovation Leadership and High Efficiency 創新引領	✓		✓		
	Occupational Health and Safety Management 職業健康與安全管理	People-Centric Development 人本共好	✓	✓		✓	
	Chemicals Management 化學品管理	People-Centric Development 人本共好	✓	✓	✓	✓	
Governance 管治	Compliance-Driven Operations and Risk Management 合規運營與風險管理	Compliance-Driven Operations and Integrity 合規運營		✓	✓	✓	✓
	Business Ethics and Anti-Corruption 商業道德與反貪腐	Compliance-Driven Operations and Integrity 合規運營	✓	✓	✓	✓	✓
Environmental 環境	Green Products & Packaging 綠色產品與包裝	Cleaner Production & Low-Carbon 清潔生產	✓	✓	✓		
	Response to Climate Change 應對氣候變化	Cleaner Production & Low-Carbon 清潔生產	✓	✓	✓	✓	
	Ecology and Biodiversity Protection 生態與生物多樣性保護	Cleaner Production & Low-Carbon 清潔生產	✓	✓	✓		

Issue Category 議題類別	Material Issues 重要性議題	Location 回應章節	Supply Chain 供應鏈	Production/ Operations 生產 / 運營	Products 產品	Employees 員工	Social Engagement 社會參與
Social 社會	Intellectual Property Protection 知識產權保護	Innovation Leadership and High Efficiency 創新引領		✓	✓	✓	
	Supply Chain Management 供應鏈管理	Partner Collaboration 夥伴協同	✓	✓			
	Compliance Employment 合規僱傭	People-Centric Development 人本共好				✓	
	Staff Development and Training 員工發展與培訓	People-Centric Development 人本共好				✓	
	Employee Rights and Benefits 員工權益與福利	People-Centric Development 人本共好				✓	
	Community Public Welfare Services 社區與公益	Partner Collaboration 夥伴協同					✓
Governance 管治	Corporate Governance 公司治理	Compliance-Driven Operations and Integrity 合規運營		✓	✓	✓	✓
Governance 管治	Information Security & Privacy Protection 信息安全與隱私保護	Compliance-Driven Operations and Integrity 合規運營	✓	✓	✓	✓	
	Stakeholder Communication 利益相關方溝通	Compliance-Driven Operations and Integrity 合規運營	✓	✓	✓	✓	✓

Note: Regarding the degree of importance of the issues, the dark blue part indicates a high level of importance, the medium blue part indicates a moderate level of importance, and the light blue part indicates a low level of importance.

註：議題重要性程度，深藍色部分表示高度重要性，中藍色部分表示中度重要性，淺藍色部分表示低度重要性。

Cleaner Production & Low-Carbon Pursuit of XLX Group

清潔生產 低碳心連心

XLX Group consistently upholds the principles of green development. We are committed to continually enhancing our environmental management system, which integrates the management of production operations, pollution prevention and control, resource utilisation, climate change response, and biodiversity protection. Our goal is to minimise the impact of our operations on the environment, resources, and climate while achieving a harmonious balance between economic growth and ecological sustainability.

心連心集團始終秉持綠色發展理念，不斷完善環境管理體系，統籌生產運營、污染防治、資源利用、應對氣候變化、生物多樣性保護等管理，致力於降低自身運營對環境、資源、氣候的影響，實現經濟效益與生態環境效益的協調統一。

SDGs Addressed in this Chapter: 本章所回應的 SDGs:



Major Material Topics of Sustainability Covered in this Chapter: 本章所涉及的重大可持續發展議題:

- ◆ Pollutant Management
污染物管理
- ◆ Waste Discharge and Resource Recycling
廢棄物排放與資源循環利用
- ◆ Chemicals Management
化學品管理
- ◆ Energy Management and Clean Energy Utilisation
能耗管理與清潔能源利用
- ◆ Water Resource Management
水資源管理
- ◆ Green Products & Packaging
綠色產品與包裝
- ◆ Response to Climate Change
應對氣候變化
- ◆ Ecology and Biodiversity Protection
生態與生物多樣性保護



Environmental Management System Development

環境管理體系建設

XLX Group has established and continuously improved its environmental management system, building a clearly defined and highly efficient environmental management framework. The Group has formulated and implemented stringent environmental management policies and measures, consistently strengthening employees' environmental awareness and their ability to respond to environmental emergencies. These efforts drive the Group toward becoming a modern, large-scale coal chemical enterprise that is green and low-carbon.

心連心集團建立並不斷完善環境管理體系，搭建職責明確、高效協同的環境管理架構，制定並實施嚴格的環境管理制度和措施，持續加強員工環保意識和對環境突發事件應對能力的建設，推動本集團成為綠色低碳的現代化大型煤化工集團。

Performance 績效

As of the end of 2024 截至 2024 年末



all three production bases and major subsidiaries have established ISO 14001 environmental management systems and passed the certification

三大基地及主要子公司均已建立 ISO 14001 環境管理體系並通過認證



there are **3** National "Green Factories"

3 家國家級「綠色工廠」



for **13** consecutive years, the Group has been awarded the honourable title of "Synthetic Ammonia Industry Leader of Energy Efficiency Benchmarking Enterprise"

連續 **13** 年獲得「合成氨能效领跑者標杆企業」榮譽稱號



awarded the honourable title of "Top-Tier Environmental Performance-Rated Enterprise (Class A)"

獲「環保績效評價 A 類企業」榮譽稱號

ENVIRONMENTAL MANAGEMENT STRUCTURE AND SYSTEMS

環境管理架構與制度

XLX Group strictly complies with the environmental laws and regulations, including but not limited to the Environmental Protection Law of the PRC, the Law of the PRC on the Prevention and Control of Atmospheric Pollution, the Law of the PRC on the Prevention and Control of Water Pollution, the Law of the PRC on the Prevention and Control of Environmental Pollution by Solid Wastes, Measures for Environmental Management of Contaminated Land, and Regulations on Environmental Protection Management for Construction Projects, as well as relevant industry emission standards. In 2024, we established 21 new management system documents tailored to our actual production and operational needs. These documents encompass key areas such as Environmental Protection Responsibility System, Environmental Objectives and Targets Management, Environmental Monitoring Management Regulations, Environmental Factors Identification and Evaluation Control Procedure, Pollution Prevention and Control Management, and Environmental Risk Emergency Management. This comprehensive framework ensures that our environmental management efforts are implemented in an orderly, efficient, and effective manner. The Environmental Protection Supervision Department, overseen by the General Manager of XLX Group, serves as a central supervisory body for environmental protection initiatives. The department coordinates environmental management activities across all departments, subsidiaries, and factories.

心連心集團嚴格遵守《中華人民共和國環境保護法》《中華人民共和國大氣污染防治法》《中華人民共和國水污染防治法》《中華人民共和國固體廢物污染防治法》《污染地塊土壤環境管理辦法》《建設項目環境保護管理條例》等法律法規及相關行業排放標準。本集團結合生產經營實際，於2024年新制定包含環境保護責任制、環保目標指標管理、環境監測管理規定、環境因素識別評價控制程序、污染防治管理、環境風險應急管理等內容的21項管理制度文件，保證環境管理工作有序高效進行。由集團總經理統管的環保督察處是本集團環境保護工作的綜合監管部門，統籌協調各部門、分子公司與工廠的環境管理工作。

Senior management 高級管理層

It is the decision-maker for environmental management and protection. It organises the formulation of long-term environmental protection plans, annual schedules, accountability systems, and ensures resource allocation.

環境管理與保護工作的決策層，負責組織制定本集團環境保護長遠發展規劃和年度實施計劃，全面落实環境保護責任制，並提供必要的資源支援。

Environmental supervision office 環保督察處

It is the comprehensive regulatory body of environmental protection. It drafts environmental management systems, organises emergency response plans, and supervises daily environmental management. With these measures, it ensures that the Group's business operations are compliant with relevant laws and regulations of environmental protection. It is also responsible for environmental risk assessments and management.

環境保護工作的綜合監管部門，負責擬定本集團的環保管理制度、組織制定突發環境事件應急預案、監督日常環保管理活動，以確保本集團生產經營活動符合環保相關法規要求，並進行環境風險評估和管理。

Heads of business units and subsidiaries 各事業部、子公司部門負責人

Within their business scope, they ensure the implementation of environmental policies, compliance with regulations of environmental protection, and employees' participation in environmental training.

負責在各自部門內部推動環境保護政策的執行，確保員工遵守環境保護規定，並參與環保培訓。

The Group's employees 本集團員工

Comply with regulations of pollution prevention and engage in environmental protection activities.

遵守環境保護污染防治規定，積極參與環境保護活動。

ENVIRONMENTAL MANAGEMENT POLICY AND OBJECTIVES

環境管理方針與目標

XLX Group follows the Environmental Protection Policy of “People-Centered, Law-Abiding Integrity, Green and Energy-Efficient, Continuous Improvement”. We integrate environmental protection into enterprise management and develop regulations for environmental incidents and an annual environmental action plan based on our operational conditions. The occurrence and severity of environmental accidents are linked to the performance of responsible departments and managers. We conduct monthly appraisals of relevant personnel, considering the incidence, management, and impact of environmental accidents. The specific environmental objectives and their 2024 progress are summarised below:

心連心集團踐行「以人為本、守法誠信、綠色節能、持續改進」的環境保護方針，將環境保護理念融入企業經營管理，並根據實際經營情況制定環境環保事故管理規定和年度環保行動方案。環保事故發生情況及嚴重程度與責任部門及相關負責人績效掛鉤，本集團參考環保事故發生、管理及影響程度等每月度對相關人員進行績效考核。具體環境目標及其進展如下：

XLX Group's Environmental Targets Three-Year Plan and Progress for 2024

心連心集團環境目標三年規劃及 2024 年進展

Environmental Protection Targets 環境目標	2024	2025-2026	Achievement of Targets for 2024 2024 年目標達成情況
Improvement in Environmental Performance 環保績效提升	Continuously improve environmental performance classification, maintain leadership in environmental performance, and minimize the environmental impact on the Group's production and operations 持續環保績效分級提升，保持環保績效領先，減少環保對本集團生產經營的影響	Continuously improve environmental performance classification 持續環保績效分級提升	Achieved 達成
Maintaining “Energy/Water Efficiency Frontrunner” 能效/水效領跑	Maintain “Energy Efficiency Dual Frontrunner”, and strive for “Water Efficiency Frontrunner” 保持「能效雙領跑」、爭取「水效領跑」	Maintaining “Energy Efficiency Dual Frontrunner” and “Water Efficiency Frontrunner” 保持「能效雙領跑」「水效領跑」	Achieved 達成
Environmental Accidents 環保事故	No major environmental accidents 無重大環保事故發生	No major environmental accidents 無重大環保事故發生	Achieved 達成

ENVIRONMENTAL RISK MANAGEMENT

環境風險管理

XLX Group strictly complies with relevant laws and regulations, including the Environmental Impact Assessment Law and the Measures for Supervisory Monitoring and Information Disclosure of Pollution Sources of Key State Monitored Enterprises (Trial), and follows the "Three Simultaneities" system for construction projects. We have formulated institutional documents such as the Environmental Factor Identification and the Evaluation Control Procedure, Environmental Risk Emergency Management Plan, and the Project Site Management Regulations to further enhance our environmental risk management system and environmental emergency response framework. To identify, assess and control environmental risks, we take the initiative to conduct environmental impact assessments, regularly carry out internal and external environmental audits and on-site environmental inspections of projects under construction, and implement targeted measures to address and resolve environmental hazards and problems.

心連心集團嚴格遵守《環境影響評價法》《國家重點監控企業污染源監督性監測及信息公開辦法（試行）》等相關法律法規、管理條例和建設項目「三同時」制度要求，制定《環境因素識別評價控制程序》《環境風險應急管理》《工程項目現場管理規定》等制度文件，進一步完善環境風險管理體系和環境應急體系。為識別、評估和管控環境風險，本集團主動開展環境影響評價工作，定期開展內部與外部環境審核、在建項目現場環保檢查，採取針對性措施應對解決環境隱患和問題。



Project environmental impact assessment 項目環境影響評價

Conduct environmental impact assessments, compile project environmental impact reports, and submit the reports to ecological authorities for approval to ensure compliant pollutant discharge, such as wastewater, emissions, solid waste, and noise, and implement relevant mitigation measures.

開展項目環境影響評價並編制《項目環境影響報告書》，提交有關生態環境監管部門批復，以確保廢水、廢氣、固體廢棄物、噪聲等各項污染物達標排放並採取相應防治措施。



Ongoing project on-site environmental inspections 在建項目現場環保檢查

The project management department shall conduct environmental protection inspections on ongoing construction projects and issue notifications for matters that do not meet environmental protection requirements.

由工程管理部開展在建項目現場環保檢查並通報，針對不符合環保要求的事項開展專項檢查通報。



Management of adverse environmental impacts at project sites

項目現場負面環境影響管理

Control and mitigate adverse impacts on environment through dust suppression measures such as covering exposed soil with dust suppression nets and sprinkling water on construction roads.

通過覆蓋裸露土體抑塵網、現場施工道路灑水清理抑塵等措施來控制和減緩項目工程帶來的負面環境影響。



Employee training

員工培訓宣貫

Carry out environmental protection training, including the promotion and implementation of regulations on the management of construction sites, to enhance employees' awareness and capabilities in managing environmental impacts.

開展工程項目現場管理規定宣貫等環保培訓活動，加強員工項目現場環境影響管理意識和能力。

Performance 績效

In 2024, the Group 2024 年，本集團



invested a total of **RMB 108,609,900** in environmental protection funds

環保資金投入達 **10,860.99** 萬元



conducted **11** internal environmental audits and **3** external environmental audits to ensure compliance and identify areas for improvement

共開展內部環境審核 **11** 次，外部環境審核 **3** 次



maintained a clean environmental record with no major environmental accidents or violations of environmental laws and regulations

無重大環保事故或環境領域違法違規事件發生

ENVIRONMENTAL PROTECTION TRAINING AND PUBLICITY CAMPAIGNS

環保培訓與宣貫

XLX Group has implemented multiple environmental protection training sessions and publicity campaigns, including World Environment Day campaigns, solid waste and pollution discharge permit management training, VOCs detection instrument training, online analyzer environmental management training, and the establishment of internal WeChat communication groups for environmental management, with the aim of enhancing employees' awareness and recognition of environmental protection.

心連心集團開展多輪次環保培訓宣傳，包括六五世界環境日宣傳、固廢及排污許可、VOCs 檢測儀器培訓、線上分析儀環境管理等環保培訓，並建立環境管理內部微信溝通群，以提升職工對於環境保護的認知度和認同感。

XLX Group's 2024 Employee Environmental Protection Training

心連心集團 2024 年員工環保培訓情況

Indicator 指標	Unit 單位	Xinxiang Base 新鄉基地	Xinjiang Base 新疆基地	Jiangxi Base 江西基地
Number of employee environmental training sessions 員工環保培訓次數	Time 次	46	36	5
Number of participants to employee environmental training 員工環保培訓參與人數	Person 人	8,500	1,250	150
Hours of employee environmental training sessions 員工環保培訓時長	Hour 小時	92.00	72.00	10.00



On 5 June 2024, the Group participated in World Environment Day campaigns organised by the county government and actively communicated with the county government on the Group's environmental management initiatives and achievements in recent years.

本集團於2024年6月5日參加由縣政府組織的世界環境日宣傳活動，並和縣政府就本集團近年環保治理工作和成果開展積極溝通。

Pollution Prevention and Control

污染防治

XLX Group strictly complies with national and local government regulations and standards on emissions management. We obtain the required discharge permits and implement comprehensive emissions management practices to enhance pollution control and minimise the impacts of waste gas, waste water, solid waste, and noise on the environment and local communities. We have established robust management systems and initiatives for waste gas, waste water, solid waste, and noise control, standardizing and streamlining our environmental protection processes to ensure all pollution emission indicators meet regulatory standards and support the Group's sustainable development. In 2024, we did not experience any negative incidents related to emissions exceeding regulatory limits or non-compliant discharges.

心連心集團嚴格遵守國家及各級地方政府有關排放物管理的法律、法規與標準，依法取得排污許可證，並開展排放物管理工作，加強污染防治，最大程度減少三廢和噪音對周邊環境和居民生活的負面影響。我們制定了廢氣、廢水、固體廢棄物、噪音管理制度和管理舉措，推動環境保護工作規範化流程化，確保各項污染排放指標達標，助力本集團可持續發展。2024年，我們未發生任何排放物超標排放或違規排放的負面事件。

WASTE GAS MANAGEMENT

廢氣管理

XLX Group strictly complies with national, local, and industry-relevant regulations, ordinances, and standards for waste gas emissions, including the Integrated Emission Standard of Air Pollutants. In 2024, we revised the Regulations on Atmospheric Pollution Prevention and Control Management for Group Companies. This ensures that all production bases meet the emission standards, including soot $\leq 10 \text{ mg/Nm}^3$, $\text{SO}_2 \leq 35 \text{ mg/Nm}^3$, and $\text{NO}_x \leq 50 \text{ mg/Nm}^3$. To maintain consistent control over dust emissions at construction sites, we implement measures such as water spraying for dust suppression and covering areas with dust suppression nets.

Each production base within the Group develops its own waste gas emission targets and management measures tailored to actual production conditions, ensuring scientific and reasonable management of waste gas emissions. In 2024, to further mitigate the impacts of waste gas emissions on the surrounding environment, all three major production bases invested in advanced waste gas disposal and management equipment, including flue gas desulfurisation facilities, dust removal systems, and flue gas monitoring equipment. These investments enhance our capacity for effective waste gas reduction and facilitate comprehensive supervision of both pollutant generation processes and end-treatment procedures.

心連心集團嚴格執行《大氣污染物綜合排放標準》等國家、地方及相關行業廢氣排放法規、條例與標準，並於2024年新修訂《集團公司大氣污染防治管理規定》，確保本集團各生產基地按煙塵 $\leq 10 \text{ mg/Nm}^3$ 、 $\text{SO}_2 \leq 35 \text{ mg/Nm}^3$ 、 $\text{NO}_x \leq 50 \text{ mg/Nm}^3$ 指標要求合規排放。同時，本集團通過灑水抑塵、覆蓋抑塵網等措施，確保工程現場粉塵排放持續受控。

本集團各生產基地按照實際生產運營制定各自廢氣排放目標和管理措施，確保實現廢氣排放的科學合理管理。2024年，為進一步降低廢氣排放對周邊環境的影響，三大生產基地均購買包括煙氣煙塵脫硫處理設施、煙氣監控設施等在內的廢氣處置管理設備，提升廢氣減排效率，對大氣污染物的產生和末端處理處置等過程進行綜合監督與管理。



Case 案例

Enhanced investment in waste gas disposal and monitoring facilities at Xinxiang Base 新鄉基地加大外購廢氣處置和監控設施投入

In 2024, the Xinxiang Base of XLX Group significantly increased its capital investment in waste gas emission management. By acquiring new treatment and monitoring equipment and upgrading existing systems, the base successfully reduced waste gas emissions and enhanced treatment efficiency.

- To address flue gas emissions, the base upgraded three sets of online flue gas monitoring systems and one set of online dust monitoring systems, enabling comprehensive supervision of the entire flue gas emission process.
- In terms of foul odors from sewage, the base installed new biological deodorisation devices at its sewage treatment terminals, effectively minimizing foul gas emissions.
- Additionally, to tackle nitrogen oxide emissions from boilers, an extra layer of Selective Catalytic Reduction (SCR) denitrification catalyst was added to Boiler No. 5. This modification has increased the removal efficiency of nitrogen oxides to over 90%, significantly reducing their negative impact on human health and the surrounding environment.



Waste Gas Disposal Equipment

2024 年，新鄉基地加大在廢氣排放管理方面的資金投入，通過購買處理和監控設備、升級舊有設備，降低廢氣排放量，實現廢氣處理效率提升。

- 在煙氣排放方面，該基地更新升級三套煙氣線上監控設施和一套煙塵線上監控設施，實現煙氣排放的全流程監督。
- 在污水惡臭氣體方面，該基地通過新增污水終端生物除臭裝置，降低污水終端惡臭氣體排放。
- 在鍋爐氮氧化物排放方面，該基地在 5 號鍋爐新增一層 SCR 脫硝催化劑，將鍋爐氮氧化物去除率提升至 90% 以上，減少鍋爐氮氧化物對人體健康和周邊環境的負面影響。



廢氣處置設備

Performance 績效



In 2024, Henan XLX invested a total of **RMB 5,522,400** in outsourcing waste gas disposal equipment

2024 年，河南心連心外購廢氣處置設備資金投入共計 **552.24** 萬元

Waste Gas Emissions of XLX Group² 心連心集團廢氣排放情況²

Indicator 指標	Unit 單位	2024	2023	2022
Total waste gas emissions 廢氣排放總量	Tons 噸	569.60	552.13	464.81
Waste gas emission density 廢氣排放密度	Tons/10,000 Tons product 噸/萬噸產品	0.52	0.53	0.53
Nitrogen Oxides (NO _x) 氮氧化物 (NO _x)	Tons 噸	418.42	414.10	343.32
Sulphur Oxides (SO _x) 硫氧化物 (SO _x)	Tons 噸	60.81	77.19	65.57
Soot 煙塵	Tons 噸	32.49	60.84	55.92
Particulate matter 顆粒物	Tons 噸	57.88	/	/

WASTEWATER MANAGEMENT 廢水管理

XLX Group strictly adheres to laws, regulations, and standards such as the Discharge Standard of Water Pollutants for the Ammonia Industry and the Integrated Wastewater Discharge Standard. In 2024, we revised the Regulations on Water Pollution Prevention and Control Management for Group Companies to ensure rigorous treatment of industrial wastewater and domestic sewage. Each production base within the Group has established wastewater treatment plants for secondary treatment of wastewater and implemented standardised sewage outlets to guarantee that collected sewage is treated and discharged in compliance with regulatory standards after collection and processing. In line with environmental protection requirements, we have upgraded our online wastewater monitoring instruments. Additionally, we engage a third-party professional organisation to analyze sewage discharge testing data on a quarterly basis. This practice ensures that all wastewater discharge indicators consistently meet regulatory standards. In 2024, we did not experience any negative incidents involving violations of water quality permits, standards, or regulations.

心連心集團嚴格遵守《合成氨工業水污染物排放標準》《污水綜合排放標準》等法律法規及標準，並於2024年新修訂《集團公司水污染防治管理規定》，嚴格處理工業廢水及生活污水。本集團各生產基地均開設了廢水處理廠對廢水進行二次處理，並設置標準排污口，使污水經收集處理達標後合規排放。我們按照環保要求更換廢水線上監測儀器，每季度邀請第三方專業機構分析污水排放檢測數據，保證各項廢水排放指標達標。2024年，本集團未發生任何違反水質許可證、標準和法規的負面事件。

²The emissions of exhaust coverage focus solely on three major production subsidiaries under the Group: Henan XLX, Xinjiang XLX, and Jiangxi XLX. The parameter used for calculating wastewater discharge density is the annual production output of these three companies for the corresponding year. Data not disclosed in previous years is marked with "/". The same logic applies to the statistics and calculations of wastewater discharge data, waste discharge data, and energy and water usage data.

² 廢氣排放數據的覆蓋範圍僅聚焦於本集團旗下三家主要生產主體公司，分別為河南心連心、新疆心連心以及江西心連心，計算廢水排放密度時使用的參數為對應年度三家公司的年產量。以前年度未能統計披露的數據我們用“/”表示。下方廢水排放數據、廢棄物排放數據、能源及水資源使用數據統計與計算邏輯同理。



Case
案例

Wastewater treatment energy efficiency improvement and subsequent optimisation project at Xinxiang Base 新鄉基地污水處理能效提升及後續優化項目

From 2023 to 2024, the Xinxiang Base implemented a project aimed at enhancing the energy efficiency of wastewater treatment and optimising subsequent processes. This initiative successfully increased the wastewater treatment efficiency to 60%, which significantly reduced treatment costs. The project not only created additional capacity for wastewater processing but also bolstered the overall capability for wastewater disposal. As a result, it has played a crucial role in supporting the sustainable development goals of the Group.

2023 至 2024 年，新鄉基地開展污水處理能效提升及後續優化項目，成功將污水處理效率提升至 60%，有效降低了廢水處理成本，提供了更多的污水處理負荷餘量，提升了廢水處置能力，促進了本集團的可持續發展。



Site of the Wastewater Treatment Energy Efficiency Improvement and Subsequent Optimisation Project
污水處理能效提升及後續優化項目現場



Case
案例

Upgrading of the ultrafiltration process for reclaimed water reuse at Xinjiang Manas Base 新疆瑪納斯基地中水回用超濾工藝提升

In 2024, the Xinjiang Manas Base actively implemented environmental protection measures by enhancing reclaimed water reuse technology. This upgrade significantly increased the recovery rates of ultrafiltration and reverse osmosis processes to 60%, effectively reducing the volume of externally discharged wastewater. Additionally, through process adjustments, the base successfully reduced the concentrations of key pollutants in the wastewater, including PH value, ammonia nitrogen, total nitrogen, and total phosphorus. These improvements not only enhanced the environmental benefits of the base's operations but also contributed to a healthier ecological environment within the plant area.

2024 年，新疆瑪納斯基地積極採取環保措施，通過提升中水回用技術，超濾和反滲透回收率顯著提高到 60%，從而有效減少了廢水的外排量。同時，該基地還通過工藝調整，成功降低了廢水中 PH 值、氨氮、總氮以及總磷等污染物的密度，進一步提升了該基地的環保效益，改善了廠區生態環境。



Reclaimed Water Reuse Equipment
中水回用設備

Wastewater Discharge of XLX Group 心連心集團廢水排放情況

Indicator 指標	Unit 單位	2024	2023	2022
Total wastewater discharge (including domestic wastewater) 廢水總量 (含生活廢水)	Tons 噸	7,097,891.21	8,070,089.32	6,743,941.32
Wastewater discharge density 廢水排放密度	Tons/Tons product 噸/噸產品	0.65	0.77	0.76
Chemical oxygen demand (COD) 化學需氧量 (COD)	Tons 噸	276.70	237.13	187.63
Average COD emission concentration ³ 化學需氧量平均排放濃度 ³	mg/L 毫克/升	38.98	30.06	27.82
Ammonia nitrogen (N-NH ₃) 氨氮 (N-NH ₃)	Tons 噸	12.34	13.52	6.03
Average ammonia nitrogen emission concentration 氨氮平均排放濃度	mg/L 毫克/升	1.74	1.68	0.89
Total phosphorus (TP) 總磷	Tons 噸	1.06	0.77	0.70
Average total phosphorus emission concentration 總磷平均排放濃度	mg/L 毫克/升	0.15	0.10	0.10
Total nitrogen (TN) 總氮	Tons 噸	93.88	97.41	101.76
Average total nitrogen emission concentration 總氮平均排放濃度	Tons 噸	13.23	12.07	15.09

³Average emission concentration of COD: COD emissions (in tons) are converted into milligrams and divided by the total wastewater discharges (in litres). The calculation logic for ammonia nitrogen, total phosphorus, and total ammonia concentrations is similar.

³ 化學需氧量的平均排放濃度：化學需氧量 (COD) 的排放量 (噸) 轉換為毫克，除以廢水的總排放量 (以升為單位)。氨氮、總磷、總氮濃度計算邏輯同理。

WASTE MANAGEMENT

廢棄物管理

XLX Group classifies solid waste into hazardous waste and general industrial solid waste in accordance with the Law of the PRC on the Prevention and Control of Environmental Pollution by Solid Waste and relevant local standards. Hazardous waste is entrusted to qualified third-party units for compliant disposal, while non-hazardous general industrial solid waste is directed to other organisations for recycling and reuse. The Group strictly follows the national industrial solid waste declaration system, proactively submitting detailed information on major industrial solid waste types, quantities, flows, storage, and disposal to environmental authorities.

心連心集團按照《中華人民共和國固體廢物污染環境防治法》等要求以及地方標準，將固體廢棄物分為危險廢棄物和一般工業固廢進行分類管理，危險廢棄物交由第三方具有專業資質的單位合規處置，一般工業固廢等無害廢棄物交由其他單位回收再利用。同時，本集團嚴格遵循國家工業固體廢棄物申報登記制度，主動向環保主管部門提交主要工業固體廢棄物的種類、產生量、流向、儲存及處置等多方面的資料。

Adhering to the principles of “Reduction, Recycling, and Harmless Treatment”, XLX Group aims to minimise waste generation and actively promotes “waste-free factory” construction. Each of our three production bases has established specific targets for solid waste emissions and compliance disposal rates tailored to their operational realities. They have also constructed compliant storage facilities for solid wastes as well as hazardous waste warehouses that ensure enclosed storage practices. Furthermore, all three production bases have implemented specialised solid waste management training programmes to enhance employees' awareness and capabilities in this area.

本集團遵循固廢「減量化、資源化、無害化」處置原則，從源頭削減廢物產量，積極推進「無廢工廠」建設。三大生產基地根據實際業務情況制定固體廢棄物排放目標和固體廢物合規處置率要求，並建有合規的固廢貯存場所和危廢庫進行固體廢棄物對閉式貯存。此外，三大生產基地均開展了固體廢棄物專項培訓，以提升員工固體廢棄物管理意識和能力。



Case
案例

Xinxiang base carried out special training on solid waste 新鄉基地開展固體廢物專項培訓

On 21 June 2024, XLX Group organised a special training session on solid waste management for each subsidiary and business division at the Xinxiang Base, inviting experts from the City's Radiation and Solid Waste Section to lead the training. During this session, the experts provided a comprehensive overview of various critical topics, including the definition of solid waste, relevant laws and regulations on hazardous waste, standardised management of hazardous waste, and typical cases of illegal activities related to hazardous waste. This training aimed to enhance employees' understanding of solid waste management principles and practices, and significantly improved their awareness and capabilities in managing solid waste responsibly.

Site of the Special Training on Solid Waste Management ▶

污水處理能效提升及後續優化項目現場

2024年6月21日，本集團邀請市輻射與固廢科專家，組織新鄉基地各子公司、事業部進行固體廢物專項培訓。固廢科專家對固廢定義，危險廢物相關法律法規，危廢規範化管理，危險廢物典型違法案例進行了詳細講解，加強了員工對固體廢物管理的理解，也提升了員工固體廢物管理意識和管理能力。



Waste Discharge of XLX Group 心連心集團廢棄物排放情況

Indicator 指標	Unit 單位	2024	2023	2022
Total non-hazardous waste ⁴ 無害廢棄物總量 ⁴	Tons 噸	702,404.30	589,604.43	662,456.90
Non-hazardous waste discharge intensity 無害廢棄物排放密度	Tons/10,000 Tons product 噸/萬噸產品	644.03	880.30	989.07
Boiler slag (including water sludge) 鍋爐渣 (包含水污泥)	Tons 噸	337,519.70	/	/
Fly ash and gasification ash/slag 粉煤灰和氣化灰渣	Tons 噸	348,705.60	/	/
Gasification filter cake 氣化濾餅	Tons 噸	16,179.00	/	/
Total non-hazardous waste recycling volume 無害廢棄物再利用量	Tons 噸	372,917.00	/	/
Total hazardous waste volume ⁵ 有害廢棄物總量 ⁵	Tons 噸	490.89	625.80	392.39
Hazardous waste discharge density 有害廢棄物排放密度	Tons/10,000 Tons product 噸/萬噸產品	0.45	0.91	0.59
Waste engine oil 廢機油	Tons 噸	281.86	/	/
Spent catalyst 廢催化劑	Tons 噸	95.42	/	/
Spent activated carbon 廢活性炭	Tons 噸	45.64	/	/
Fusel oil and alkylation waste liquid 雜醇油和烴化廢液	Tons 噸	38.87	/	/
Waste packaging containers (drums/bags) 廢包裝桶、袋	Tons 噸	14.64	/	/
Waste lead-acid batteries 廢鉛蓄電池	Tons 噸	12.54	/	/
Analytical waste liquid 分析廢液	Tons 噸	1.92	/	/
Hazardous waste recycling volume 有害廢棄物回收總量	Tons 噸	419.73	/	/

⁴Non-hazardous waste includes production waste generated during the Group's production and operational processes, excluding construction waste and domestic waste.

⁴ 無害廢棄物包括本集團生產運營過程中產生的生產垃圾，暫未納入建築垃圾及生活垃圾。

⁵The types of hazardous waste are in accordance with the National Catalogue of Hazardous Wastes (2021 Edition). The discharge volume of some hazardous waste categories may fluctuate significantly based on actual production process requirements and equipment conditions.

⁵ 有害廢棄物類型依照《國家危險廢物名錄（2021年版）》，部分有害廢棄物種類排放量會根據實際生產工藝需求及設備工況而產生較大波動。

NOISE MANAGEMENT
噪音管理

To prevent and control noise pollution and safeguard the health of employees and surrounding residents, XLX Group strictly complies with laws, regulations, and industry standards, such as the Law of the PRC on the Prevention and Control of Noise Pollution and the Technical Specification for Application and Issuance of Pollutant Permit — Industrial Noise (HJ 1301—2023). In 2024, we revised the Regulations on Noise Pollution Prevention and Control Management for Group Companies to further standardise the management of noise at the factory boundary. We effectively control noise pollution during the production process through measures such as source control, inspection and maintenance, and factory boundary noise monitoring. In 2024, we did not experience any noise disturbance incidents leading to formal complaints or regulatory reports.

為防治噪聲污染，保障員工及周邊居民的健康，心連心集團嚴格遵守《中華人民共和國噪聲污染防治法》《排污許可證申請與核發技術規範 - 工業噪聲》(HJ1301-2023) 等法律法規和行業標準，並於 2024 年新修訂《集團公司噪聲污染防治管理規定》，進一步規範對廠界噪聲的管理。我們通過源頭控制、檢查維護、廠界噪聲監測等方法，有效控制生產過程中的噪聲污染。2024 年，本集團未發生任何噪聲擾民而被舉報或投訴事件。

Major Noise Prevention and Control Measures of XLX Group
心連心集團主要的噪聲防控舉措

<p>Reduce noise emissions at the source 減少噪音源頭排放</p> <p>Optimise the layout of noise-producing facilities and logistics transportation routes Adopt low-noise equipment and transportation tools 優化產噪設施佈局和物流運輸路線 優先採用低噪聲設備和運輸工具</p>	<p>Regularly inspect production equipment 定期檢查生產設備</p> <p>Regularly inspect moving parts (such as hinges, latches, etc.) and sealing mechanisms (materials) of production equipment for timely maintenance and replacement 定期檢查生產設備的活動機構(如較鏈、鎖扣等)和密封機構(材料)的磨損情況等，及時保養、更換</p>
<p>Store spare parts for vulnerable equipment 儲備易損設備配件</p> <p>Vulnerable devices, accessories, and general consumables in noise control equipment are stocked by units responsible for industrial noise emission in accordance with mechanical equipment management regulations and operational safety requirements 噪聲控制設備中的易損設備、配件和通用材料，由工業噪聲排放單位按機械設備管理規程和工藝安全運行要求儲備</p>	<p>Formulate equipment operation and maintenance procedures 制定設備運維規程</p> <p>Based on factors such as hygienic conditions and media properties of the operating environment for noise and vibration control equipment, formulate corresponding operation and maintenance procedures 根據噪聲與振動控制設備的使用環境的衛生條件、介質屬性等因素，制定相應的運行和維護規程</p>
<p>Inspect and maintain prevention and control facilities 檢查維護防治設施</p> <p>Regularly inspect and maintain noise pollution prevention facilities 定期對噪聲污染防治設施進行檢查維護</p>	<p>Monitor factory boundary noise 進行廠界噪聲監測</p> <p>Perform quarterly noise monitoring at facility boundary 每季度對廠界進行噪聲監測</p>

Performance 績效



In 2024, we have real-time noise monitoring equipment outside the factory, and conducted quarterly noise monitoring at the factory boundary, achieving a compliance rate of **100%** for the monitoring data

2024 年，本集團廠區外設有噪音實時監測設備，並每季度組織開展廠界噪音監測，監測數據達成率 **100%**

Resource Utilisation

資源利用

XLX Group is dedicated to achieving comprehensive resource recycling throughout all production processes. We strive to maximise energy and water conservation while ensuring the harmless treatment of raw materials and promoting sustainable packaging solutions. In response to relevant laws and regulations, including the Law of the PRC on Energy Conservation and the Measures for Energy Conservation Management of Key Energy-Consuming Units, we have implemented several initiatives tailored to our production operations. These initiatives include adopting an intelligent manufacturing platform, utilising magnetic levitation fans, reusing reclaimed water, and recycling product packaging. Through these measures, we aim to reduce our reliance on externally sourced energy, water resources, and packaging materials while minimising losses and waste during production. This approach fosters efficient, harmless, and environmentally friendly utilisation of resources in our operations.

心連心集團致力於在各生產環節中全面實現資源的循環利用，力求最大程度節約能源與水資源，並確保產品原材料的無害化處理以及包裝的綠色化。為積極回應《中華人民共和國節約能源法》《重點用能單位節能管理辦法》等相關法律法規，本集團結合生產運營實際，採取智能製造平臺、磁懸浮風機、中水回用、產品包裝回收再利用等措施，減少能源、水資源、包裝材料的外購規模和生產過程中的損失、浪費，推動生產資源的高效、無害、綠色運用。

LOW-CARBON TRANSITION OF ENERGY

能源低碳化

To enhance the energy efficiency of our production and operations, XLX Group has established the XLX Group Energy Conservation Management Regulations and has consistently increased investments in energy-saving technological upgrades. Our initiatives include projects such as the renovation of circulating pumps in sewage SBR tanks, the implementation of circulating vacuum systems, upgrades to magnetic levitation fans, and the establishment of a dual-circuit supply system featuring “Green Power + Gray Power”, all aimed at effectively reducing coal and steam consumption. In addition to these technological advancements, we are constructing intelligent workshops and factories while launching the XLX Intelligent Manufacturing Platform. This platform enables centralised digital management of energy data, providing our management team with accurate and real-time insights into energy usage. This significantly enhances our efficiency in managing energy consumption. Additionally, XLX Group is committed to expanding renewable energy resources through initiatives such as photovoltaic power generation, biomass power generation, and procuring green electricity along with green certificates from external sources. These measures are integral to facilitating a green and low-carbon transition in our energy structure.

為提升生產經營能效，心連心集團制定《心連心集團節約能源管理規定》等規章制度，持續加大節能技改投入，通過開展污水 SBR 池循環水泵改造、循環真空改造項目、磁懸浮風機改造、「綠電 + 灰電」雙路供電等技改項目，節約煤炭和蒸汽消耗。同時，本集團進行智能車間智能工廠建設，上線心連心智能製造平臺，以實現能源數據集中、數字化、信息化管理，為管理部門提供了精準、即時、清晰的能源分析，提高了能耗管理效率。此外，本集團通過光伏發電、生物質發電和外購綠電綠證等措施佈局可再生能源，進一步促進能源結構綠色低碳轉型。

Case
案例

“Green Power + Gray Power” dual-circuit supply achieved by drone-based intelligent inspection devices at Jiangxi Base 江西基地無人機智能巡檢裝置實現「綠電+灰電」雙路供電

As part of our initiative to develop a 5G+ Digital Intelligence Factory at the Jiangxi Base, we have successfully deployed drone-based intelligent inspection devices for applications including monitoring leaks in outer pipeline corridors, detecting leaks from high towers, and identifying smoke or open flames in tank areas. This project integrates conventional 220V circuits to achieve a dual-circuit supply system combining "Green Power + Gray Power". It marks the first instance where we have employed a dual-axis tracking photovoltaic system for solar power generation within our operations. This initiative not only enhances energy stability but also optimises the overall energy consumption structure at the Jiangxi Base, providing robust support for its low-carbon transition.

Drone-based Intelligent Inspection Devices ►
無人機智能巡檢裝置

為建設江西基地 5G+ 數智工廠，在該基地首次將無人機智能巡檢裝置投入外管廊洩漏、高塔洩漏、罐區冒煙明火等場景使用。該項目融合了常規的 220V 電路，實現「綠電 + 灰電」雙路供電，是本集團首次使用雙軸跟蹤光伏系統實現光伏發電案例。該項目促進了能源穩定性，優化了江西基地的用能結構，為該基地的能源低碳轉型提供了強大助力。



Performance 績效

In 2024 2024 年



Henan XLX allocated an investment of **RMB 20.72 million** towards energy conservation efforts by researching new technologies, purchasing energy-saving equipment or upgrading existing equipment. This investment resulted in an impressive saving equivalent to **2,600 tons** of standard coal alongside total cost savings amounting to **RMB 6.64 million** from reduced energy consumption

河南心連心通過研發新技術、購買節能設備或改進用能設備投入節能資金 **2,072 萬元**，實現節能 **2,600 噸** 標準煤，節約用能成本總計 **664 萬元**



The photovoltaic power generation achieved by Henan XLX reached **9,580,200 kWh**, with self-generated clean electricity accounting for approximately **0.78%** of total power consumption

河南心連心光伏發電量達 **9,580,200 千瓦時**，自發清潔能源電力適用佔總適用電量比例 **0.78%**

Energy Use of XLX Group 心連心集團能源使用情況

Indicator 指標	Unit 單位	2024	2023	2022
Total energy consumption ⁶ 能源消耗總量 ⁶	Tons of standard coal equivalent 噸標準煤	5,559,285.14	5,282,091.06	4,561,201.65
Energy consumption density 能源消耗密度	Tons of standard coal equivalent 噸標準煤	0.51	0.50	0.52
Total direct energy consumption 直接能源消耗總量	Tons of standard coal equivalent 噸標準煤	5,323,372.88	5,038,836.92	4,360,770.94
Bunker coal 燃料煤	Tons 噸	1,576,566.10	1,447,356.87	1,376,791.22
Coal as raw material 原料煤	Tons 噸	5,804,616.62	5,538,037.93	4,667,645.16
Petrol 汽油	Tons 噸	28.00	209.00	178.00
Diesel fuel 柴油	Tons 噸	96.45	353.94	358.59
Natural gas 天然氣	10,000 cubic meters 萬立方米	3,820.48	3,635.05	3,191.40
Total indirect energy consumption 間接能源消耗總量	Tons of standard coal equivalent 噸標準煤	235,912.26	243,254.14	200,430.72
Purchased electricity 外購電力	MWh 兆瓦時	1,919,546.48	1,979,285.10	1,630,843.90

⁶This means the equivalent comprehensive energy consumption including electricity, bunker coal, raw coal, gasoline, diesel fuel, and natural gas. The conversion coefficients are sourced from GB/T 2589-2020 General Rules for Calculation of the Comprehensive Energy Consumption. The unit for comprehensive energy consumption in 2024 is tons of standard coal. To enhance data comparability, the comprehensive energy consumption and energy consumption density for 2023 and 2022 were recalculated.

⁶ 包括電力、燃料煤、原料煤、汽油、柴油以及天然氣的折算綜合能耗量，折算系數來源：GB/T 2589-2020《綜合能耗計算通則》。2024 年綜合能耗單位選用噸標準煤，為了增強數據可比性，我們重新計算了 2023 年及 2022 年的綜合能耗及能耗密度。



CIRCULAR UTILISATION OF WATER RESOURCE

水資源循環化

XLX Group has consistently prioritised the rational utilisation of water resources, continuously enhancing the scientific management of water intake, consumption, and drainage. The Group adheres to the Regulations on Integrated Water Resources Management for Group Companies, with each production base establishing its own water resource management objectives tailored to its specific circumstances. We have introduced mechanisms such as setting water consumption quotas for various industrial projects, conducting thorough assessments of water resources, and implementing a permitting system for water intake. These measures effectively control the total volume of water extraction at the source. To reduce overall water resource consumption, our primary focus has been on increasing the recycling rate of water by operationalizing reclaimed water reuse facilities and advanced treatment systems designed for reclaimed water. This approach significantly enhances our ability to recycle and reuse water resources efficiently. Our main water sources are surface water, groundwater, municipal water supply, etc., and we have not yet encountered a shortage of water resources.

心連心集團一貫重視水資源的合理利用，不斷加強科學取水、用水、排水管理。本集團執行《集團公司水資源一體化管理規定》，各生產基地根據實際情況制定水資源管理目標。我們實行項目行業水耗定額、水資源論證、取水許可機制，從源頭上進行取水量總量控制。在減少水資源消耗方面，我們重點通過投用中水回用設施和中水回用產水精製設施以提升水資源循環使用率。本集團主要取水水源為地表水、地下水、市政供水等，尚未遇到水資源不足的情況。

Water Use of XLX Group 心連心集團水資源使用情況

Indicator 指標	Unit 單位	2024	2023	2022
Water consumption 耗水	Tons 噸	27,838,721.86	39,540,828.00	22,540,974.00
Water consumption density 耗水密度	Tons/10,000 Tons product 噸/萬噸產品	2.55	3.78	3.37
Recycled water consumption 循環水用水量	Tons 噸	11,042,809.90	/	/

Performance 績效



In 2024, Xinjiang XLX achieved a water recycling and utilisation rate of **68.63%**

2024 年，新疆心連心水資源回收利用率達 **68.63%**

HARMLESS TREATMENT OF RAW MATERIALS

原料無害化

XLX Group places significant emphasis on the environmental protection, renewability, and recyclability of the primary materials used in our products. We prioritise the use of renewable materials, recyclable materials, and industrial waste in our production processes. For instance, we have developed a dual-tower distillation production process that allows us to recycle carbon dioxide gas into products such as dry ice. In addition to this, we are committed to continuously improving our production processes to enhance material utilisation rates. By implementing new or upgraded production equipment, we aim to minimise both the usage and waste of raw materials right from the design phase through to the entire production process.

心連心集團充分考慮主要產品材料的環保、可再生和循環利用性能，優先採用可再生材料、可循環利用材料、產業廢棄物等進行生產，如研發雙塔精餾生產工藝回收二氧化碳氣體製作成乾冰等產品。同時，我們通過持續改進生產工藝不斷提高材料使用率，運用新型或改良的生產設備，從設計源頭和生產過程降低產品材料的使用與損耗。



Case
案例

Recycling of waste carbon dioxide gas to produce dry ice and electronic-grade carbon dioxide products 回收廢棄二氧化碳氣體，生產乾冰和電子級二氧化碳產品

In our efforts to reduce carbon emissions from production and operations, XLX Group has successfully developed a double-tower distillation production process through dedicated technological research and innovation. This advanced process allows us to recycle waste carbon dioxide effectively. By utilizing low-temperature technology, we can liquefy carbon dioxide under specific pressure and temperature conditions, enabling the separation of carbon dioxide from other gases. This process facilitates the production of valuable products such as dry ice and electronic-grade carbon dioxide, which find extensive applications in various industries including healthcare, electronics, and food. As of the end of 2024, our nationwide annual capacity for capturing carbon dioxide has reached an impressive 1.5 million tons. This achievement is equivalent to the total amount of carbon dioxide absorbed by over 80 million trees in a single year.

為減少生產經營碳排放，本集團通過技術攻關，自主研發出一套雙塔精餾生產工藝，回收利用廢棄的二氧化碳，並利用低溫技術，在一定壓力和溫度下將二氧化碳液化，從其他氣體中分離出來，製成乾冰、電子級二氧化碳等產品，並廣泛用於醫療、電子、食品等行業。截至2024年末，我們在全國範圍內的二氧化碳的年捕集能力達150萬噸，相當於8,000萬餘棵樹一年吸收的二氧化碳總量。



GREEN TRANSITION OF PACKAGING

包裝綠色化

XLX Group conducts packaging design, procurement, and disposal in line with relevant regulations and requirements, such as the Circular of the State Council General Office on the Governance of Excessive Commodity Packaging. We have developed the Procurement Guidelines for Woven Bags and implemented statistical and management work on packaging materials usage. This standardises the work and processes related to packaging materials use and offers solid data support for promoting packaging reduction and greening.

心連心集團根據《國務院辦公廳關於治理商品過度包裝工作的通知》等相關法規和要求，開展包裝設計、採購、處理等工作。我們制定了《編織袋採購作業指導書》，並開展包裝材料使用情況的統計和管理工作，規範包裝材料使用工作和流程，為推進包裝減量化、綠色化提供了良好的數據支援。

Packaging Consumption of XLX Group⁷ 心連心集團包裝消耗情況⁷

Indicator 指標	Unit 單位	2024	2023	2022
Total packaging density 包裝密度總量	Tons 噸	9,702.86	20,941.22	15,531.00
Packaging density 包裝材料密度	Tons/10,000 Tons product 噸/萬噸產品	16.17	31.27	23.19
Woven bags 編織袋	Tons 噸	9,068.15	20,941.22	15,531.00
Other packaging materials 其他包裝物	Tons 噸	634.71	/	/

⁷The packaging material consumption coverage focus solely on three major production subsidiaries under the Group: Henan XLX, Xinjiang XLX, and Jiangxi XLX. The parameter used for calculating packaging material consumption density is the annual production output of fertilisers and melamine products of these three companies for the corresponding year. Data not disclosed in previous years is marked with “/”.

⁷ 該包裝物消耗數據的覆蓋範圍僅聚焦於本集團旗下三家主要生產主體公司，分別為河南心連心、新疆心連心以及江西心連心，計算包裝物消耗密度時使用的參數為對應年度三家公司的化肥及三聚氰胺產品的年產量。以前年度未能統計披露的數據我們用「/」表示。

Green Operations

綠色運營

XLX Group is dedicated to advancing the green transition and streamlining of logistics warehousing, ensuring scientific and efficient logistics operations. We enhance resource utilisation efficiency by actively recycling and reusing product raw materials and packaging materials, thereby avoiding unnecessary waste. Additionally, we promote ESG concepts through environmental protection training, integrating green principles and the circular economy into our daily management and operations.

心連心集團持續推進物流倉儲綠色化和便捷化，以科學高效的方式推進物流運轉。本集團通過回收再利用產品原料和包裝材料，提高資源使用效率，避免不必要的資源浪費。此外，本集團還通過員工環保培訓傳播 ESG 理念，將綠色理念與循環經濟融入企業日常管理與運營各環節。

PRODUCT PACKAGING RECYCLING

產品包裝回收

XLX Group actively promotes product packaging recycling to increase material utilisation, reduce production material usage and waste, and lessen the environmental impact of our production activities on the surrounding environment.

心連心集團積極開展產品包裝回收，提高材料使用率，從生產過程降低產品材料的使用與損耗，並減少生產經營活動對周邊環境的負面影響。



Case
案例

Formulation of the Regulations on Recycling Bin Management by Xinxiang Ruicheng 新鄉瑞誠制定《回收桶管理規定》

To maximise recycling rates and resource utilisation while minimizing environmental pollution and packaging costs, Xinxiang Ruicheng has formulated the Regulations on Recycling Bin Management. These regulations specify recycling standards for recyclable packaging barrels within subsidiaries, control recycling processes, and clarify departmental responsibilities to achieve sustainable development goals.

為最大限度提高回收率和資源利用率，減少環境污染和包裝成本，新鄉瑞誠制定《回收桶管理規定》，對子公司範圍內的可循環利用包裝桶的回收標準、回收流程管控和各部門職責分工作出明確規定，以達到可持續發展的目標。

GREEN LOGISTICS

綠色物流

XLX Group actively implements a green logistics strategy to reduce the environmental impact of logistics activities, lower energy consumption, and continuously decrease carbon emissions. This approach achieves carbon reduction, cost reduction, and improved efficiency in logistics processes.

Moreover, we have formulated and implemented energy-saving and carbon reduction measures for warehousing, promoting the in-depth development of green logistics and effectively contributing to the realisation of our energy-saving and emission reduction targets.

心連心集團積極踐行綠色物流策略，旨在減輕物流活動對環境的負面影響，降低能源消耗，持續降低碳排放，實現物流環節減碳、降本、增效。

此外，我們制定並執行了一系列倉儲節能降碳措施，推動綠色物流的深入發展，有力促進了本集團節能減排目標的實現。

GREEN TRANSPORTATION

綠色運輸

To reduce energy consumption and carbon emissions, the Group encourages suppliers to use new energy vehicles through contractual terms. Alternatively, suppliers are encouraged to use diesel vehicles compliant with National 5+ standards or LNG/CNG vehicles compliant with National 6+ standards for material transportation. This approach reduces motor vehicle exhaust emissions at the source, significantly minimizing environmental pollution in the logistics process and promoting the greening of material transportation.

為降低能源消耗和碳排放，本集團會以合同條款的形式鼓勵供應商使用新能源車輛，或採用國五及以上柴油車或國六及以上燃氣車運輸物資，從源頭上減少機動車尾氣排放，從而在物流環節顯著降低環境污染，推動物資運輸向綠色化方向邁進。

GREEN WAREHOUSING

綠色倉儲

The Group adheres to the sustainable development concepts of low-carbon, energy-saving, green, environmentally friendly, and safe practices in aspects such as the inbound and outbound of goods, intra-warehouse transportation, and transfer processes. During the stages of material inbound/outbound operations and intra-warehouse transportation, we use electric forklifts instead of fuel-powered forklifts and electric tractors instead of diesel trucks to reduce carbon emissions from material transportation. To minimise operational costs and streamline logistics operations, XLX Group has implemented the Direct Inbound of Ton Bags method. This initiative not only reduces expenses but also enhances the efficiency and sustainability of our warehousing and transportation processes.

本集團從物資出入庫、庫內運輸、倒運流程等方面切實踐行低碳、節能、綠色、環保、安全的可持續發展理念。在物資出入庫和庫內運輸階段，我們使用電叉車代替油叉車，使用電動牽引車代替柴油貨車，以降低物資運輸碳排放。同時，為減少倒運流程，我們使用噸包直接入庫的方法，節約運營支出，使倉儲運輸更高效更低碳。



At our Jiangxi facilities, warehousing operations have been significantly optimised through the use of electric forklifts and electric tractors. This advancement marks a substantial progression in the low-carbon transformation of our logistics practices.

江西心連心倉儲使用電叉車、電動牽引車，實現了倉儲運輸的高效低碳轉型。

REEN OFFICE 綠色辦公

XLX Group integrates green concepts into daily office operations. We sort and recycle office and domestic waste, use waste heat steam from production systems for winter heating in office buildings, and enhance employees' environmental awareness regarding water, electricity, and paper conservation to minimise waste and reduce resource consumption.

心連心集團將綠色理念貫徹在日常辦公運營場景中，辦公區分類回收辦公生活垃圾，回收生產系統餘熱蒸汽給辦公樓冬季供暖，強化員工節水節電和節約用紙的環保意識，最大化節能降耗和減少資源浪費。

Performance 績效

In 2024, the Group 2024 年，本集團



Resulted in the generation of **2 tons** of office waste, **all** of which has been successfully recycled

產生辦公垃圾 **2 噸**，並實現 **100%** 回收



Managed hazardous waste responsibly, including **8 tons** of used batteries, **0.05 tons** of used toner cartridges and ink cartridges, **0.1 tons** of end-of-life electronic components, **100** used fluorescent tubes. We achieved **100%** recycling and disposal rates for all hazardous waste, including used batteries, toner cartridges, ink cartridges, and electronic waste

產生的有害垃圾包括廢舊電池 **8 噸**，廢硒鼓和墨水匣 **0.05 噸**，電子元器件等報廢電子廢棄物 **0.1 噸**，廢螢光燈管 **100 個**，其中，廢舊電池、廢硒鼓和墨水匣、報廢電子廢棄物回收處置率均達 **100%**

Response to Climate Change

應對氣候變化

XLX Group actively responds to the national “Carbon Peaking and Carbon Neutrality” initiative. We reference the Task Force on Climate-related Financial Disclosures (TCFD) Recommendations Framework, the International Financial Reporting Standard S2-Climate-related Disclosures (IFRS S2), and the Implementation Guidance on Climate-related Disclosures issued by the Stock Exchange of Hong Kong Limited (SEHK). This allows us to incorporate climate change risks into our comprehensive risk management system, establish a robust climate governance mechanism, conduct climate risk identification and assessment, and develop relevant response plans to mitigate the impacts of climate risks.

心連心集團積極回應國家「雙碳」號召，參考氣候相關財務信息披露工作組（TCFD）的建議框架和國際財務報告準則－氣候相關披露（IFRS S2），並參照香港聯合交易所有限公司發佈的《氣候信息披露指引》，將氣候變化風險納入本集團全面風險管理體系，構建氣候治理機制，開展氣候風險識別與評估，並制定相關應對計劃和措施，以降低氣候風險帶來的影響。

CLIMATE AMBITION AND OBJECTIVES

氣候雄心與目標

XLX Group is committed to becoming a dual pacesetter in energy efficiency and consumption within our industry. We continuously enhance our carbon emission management system by commissioning third-party organisations to conduct carbon inventories in accordance with standards such as the Guidelines on Greenhouse Gas Emissions Accounting and Reporting for China's Chemical Production Enterprises (Trial) and the Guidelines for the Verification of Enterprise Greenhouse Gas Emissions Reporting (Trial). These initiatives lay a foundation for setting scientific carbon reduction targets and developing reasonable carbon management plans. We also encourage our subsidiaries and production bases to engage third-party authoritative institutions for product carbon footprint verification based on ISO 14067:2018 standards. In 2024, Jiangxi XLX conducted carbon footprint verification for its urea and anhydrous liquid ammonia products, while Xinjiang XLX verified its melamine products' carbon footprints. Moving forward, we will assess greenhouse gas emissions across all major products at every stage from “cradle” to “gate”, providing a solid data foundation for reducing overall product lifecycle carbon emissions.

心連心集團致力於成為行業能效、能耗雙領跑企業，不斷完善碳排放管理體系，本集團委託第三方機構基於《中國化工生產企業溫室氣體排放核算方法與報告指南（試行）》《企業溫室氣體排放報告核查指南（試行）》等標準開展碳盤查，為未來制定科學的碳減排目標和合理的碳規劃奠定了必要的基礎。本集團鼓勵旗下各子公司、各生產基地委託第三方權威機構基於 ISO 14067:2018 標準開展產品碳足跡核查。2024 年江西心連心開展了尿素和無水液氨產品碳足跡核查，新疆心連心開展了三聚氰胺產品碳足跡核查，未來我們將逐步摸底各主要產品從「搖籃」到「大門」各環節的溫室氣體排放情況，為降低產品全生命週期碳排放夯實數據基礎。

Greenhouse Gas (GHG) Emissions of XLX Group⁸ 心連心集團溫室氣體排放情況⁸

Indicator 指標	Unit 單位	2024	2023	2022
Total GHG emissions (Scope 1 + Scope 2)⁹ 溫室氣體排放總量 (範圍1+範圍2) ⁹	Tons of CO ₂ equivalent 噸二氧化碳當量	17,861,459.40	14,184,736.63	15,404,006.70
Greenhouse gas emission intensity (Scope 1 + Scope 2)¹⁰ 溫室氣體排放密度 (範圍1+範圍2) ¹⁰	Tons of CO ₂ equivalent/tons product 噸二氧化碳當量/噸產品	1.64	1.36	1.74
Direct Emission (Scope 1)¹¹ 直接排放 (範圍1) ¹¹	Tons of CO ₂ equivalent 噸二氧化碳當量	16,831,430.75	13,047,929.33	14,311,348.89
Indirect Emission (Scope 2)¹² 間接排放 (範圍2) ¹²	Tons of CO ₂ equivalent 噸二氧化碳當量	1,030,028.64	1,136,807.30	1,092,657.81

GOVERNANCE STRUCTURE AND STRATEGIES 治理架構與戰略

XLX Group places significant emphasis on climate-related issues, with senior management providing oversight and guidance. The Environmental Protection and Supervision Department, operating under the Production Management Centre, is responsible for formulating climate management systems. In collaboration with relevant departments, the department focuses closely on the Three-Year Plan and Annual Programme for Climate Governance (Energy Efficiency Leader Initiative), developing and implementing comprehensive climate management action plans.

心連心集團高度重視氣候相關問題，由高級管理層進行監督指導，生產管理中心下的環保監察處制定氣候管理制度，協同相關部門緊密圍繞「三年規劃、一年計劃」的氣候治理（能效領跑）相關內容，制定並落實氣候管理行動方案。

⁸The greenhouse gas emissions coverage focus solely on three major production subsidiaries under the Group: Henan XLX, Xinjiang XLX, and Jiangxi XLX. As the 2024 greenhouse gas emission verification report has not yet been issued, the data for this period is estimated based on energy consumption and may differ from the final verification results. The data for 2023 and 2022 is sourced from the greenhouse gas emission verification reports.

⁹該溫室氣體排放數據的覆蓋範圍僅聚焦於本集團旗下三家主要生產主體公司，分別為河南心連心、新疆心連心以及江西心連心。因2024年溫室氣體排放核查報告尚未出具，本期數據根據能源消耗情況估算得出，和最終核查結果可能會存在差異；2023年及2022年數據來源於溫室氣體排放核查報告。

⁹The greenhouse gas inventory includes carbon dioxide emissions from purchased electricity, raw coal, diesel fuel, gasoline, and natural gas.

⁹溫室氣體清單包括二氧化碳，源自外購電力、原料煤、柴油、汽油以及天然氣。

¹⁰The fluctuation in greenhouse gas emission density compared to 2023 is mainly due to the Group's increased procurement of bunker coal and raw coal in 2024 compared to 2023. Additionally, the greenhouse gas emission data is estimated and may differ from the actual inventory results.

¹⁰溫室氣體排放密度較2023年有波動主要系本集團2024年採購的燃料煤和原料煤較2023年增加，另溫室氣體排放量為估算數，可能較後期實際盤查結果有差異。計算廢水排放密度時使用的參數為對應年度河南心連心、新疆心連心以及江西心連心的年產量。

¹¹Scope 1 greenhouse gas emissions refer to the greenhouse gas emissions generated from coal used as fuel and raw material in the Group's production process, diesel fuel and gasoline consumed by fixed sources such as boilers and mobile sources such as self-owned vehicles, and natural gas used.

¹¹範圍1溫室氣體排放量，指本集團生產過程中用作燃料和原料的煤消耗，鍋爐等固定源及自有車輛等移動源消耗的柴油、汽油，使用的天然氣所產生的溫室氣體排放量。排放計算系數參照國家發展和改革委員會發佈的中國化工生產企業溫室氣體排放核算方法與報告指南（試行）。

¹²Scope 2 greenhouse gas emissions refer to the greenhouse gas emissions generated from the consumption of purchased electricity. The emission calculation coefficients for 2024 and 2023 are based on the latest (at the time) average grid emission factors jointly released by the Ministry of Ecology and Environment and the National Bureau of Statistics, which are 0.5366 tCO₂/MWh and 0.5568 tCO₂/MWh, respectively.

¹²範圍2溫室氣體排放量，指本集團消耗外購電力所產生的溫室氣體排放量。2024年及2023年排放計算系數均選用國家生態環境部、國家統計局聯合最新發佈（當時）的平均電網排放因數，分別為0.5366 tCO₂/MWh和0.5568 tCO₂/MWh。

CLIMATE RISKS AND OPPORTUNITIES

氣候風險與機遇

To effectively integrate the identification and management of climate risks and opportunities into our daily risk management practices, XLX Group remains vigilant regarding relevant issues such as changes in policies, regulations, market dynamics, technological advancements, corporate reputation, and physical risks. We perform detailed analyses of how various climate risks and opportunities impact value creation within the enterprise as well as our overall business model. Additionally, we clarify the period¹³ of impact associated with each risk or opportunity, identify affected areas within our operations, and assess potential consequences.

This scenario analysis is conducted in accordance with the Stock Exchange's recommended framework for addressing climate change and is informed by the Fifth and Sixth Assessment Reports published by the Intergovernmental Panel on Climate Change (IPCC). The analysis primarily utilises scenario data from Representative Concentration Pathways (RCPs) that simulate the impacts of physical climate risks. Additionally, it references corresponding Shared Socioeconomic Pathways (SSPs) to evaluate the physical and transition risks that XLX Group may encounter in climate scenarios projected from the baseline climate state through to 2050.

為推動氣候風險機遇的識別與管理同日常風險管理工作深度融合，心連心集團始終關注政策與法律法規變動、市場動態、技術進步、企業聲譽以及實體風險等相關議題，對各項氣候風險與機遇對企業價值創造和業務模式的影響及其傳導路徑進行詳細解讀，明確各項風險和機遇的影響週期¹³、影響環節和影響發生的後果。

本次情景分析依據聯交所關於應對氣候變化建議框架，基於聯合國政府間氣候變化專門委員會（Intergovernmental Panel on Climate Change, IPCC）公佈的第五次評估報告及第六次評估報告，主要選取專注於類比氣候實體風險影響的代表性濃度路徑（Representative Concentration Pathways, RCPs）情景數據，參考對應的共用社會經濟路徑（Shared Socioeconomic Pathways, SSPs）情景開展情景分析，以評估從基線氣候狀態至 2050 年的氣候情景中，心連心集團所面臨的實體風險與轉型風險。

¹³When defining the time horizons for various climate risks and opportunities, we comprehensively considered the carbon peaking and carbon neutrality ("dual Carbon") goals, national Five-Year Plans, and the Group's "Three-Year Plan, One-Year Plan", categorising the timeline for climate risk and opportunity events into short-term (1-3 years), medium-term (3-10 years), and long-term (10-30 years).

¹³在定義各項氣候風險與機遇的時間週期時，我們綜合考慮「雙碳」目標、國家五年規劃、集團「三年規劃、一年計劃」，將氣候風險和機遇事件發生的時間軸歸納為短期（1-3 年）、中期（3-10 年）、長期（10-30 年）。



SCENARIO SELECTION AND ASSUMPTIONS

情景選擇與假設

● Physical risks 實體風險

Scenario ¹⁴ 情景 ¹⁴ 名稱	RCP4.5	RCP8.5
Scenario description 情景描述	<p>Under the scenario, the global community implements robust mitigation actions, leading to a significant reduction in greenhouse gas emissions, which are halved by 2080. The Earth's radiative forcing is projected to stabilise at 4.5 W/m² by 2100.</p> <p>在此情景下，全球將採取強有力的緩解行動，到2080年將溫室氣體排放量減少到目前水平的一半，2100年地球的輻射強度將穩定在4.5W/m²。</p>	<p>In contrast, a “business-as-usual” scenario, where emissions continue at current rates, could result in radiative forcing exceeding 8.5 W/m² by 2100, leading to a global temperature increase of over 4°C.</p> <p>該情景以目前的排放速度照常排放溫室氣體，業務照常。在此情景下2100年地球的輻射強度將大於8.5W/m²，預計全球氣溫上升超過4°C。</p>
Projected end-of-century temperature rise 預估世紀末溫升	2.5-3°C	>4°C
Time dimension 時間維度	<p>Base year: 2023¹⁵ 基準年: 2023年¹⁵</p> <p>Short-term horizon (baseline): 2025 短期 (基線): 2025年</p> <p>Medium-term horizon: 2030 中期: 2030年</p> <p>Long-term horizon: 2050 長期: 2050年</p>	
Analysis boundary 分析邊界	<p>The physical asset locations of three individual subsidiaries: Henan XLX, Xinjiang XLX, and Jiangxi XLX¹⁶.</p> <p>河南心連心、新疆心連心、江西心連心3家單體子公司實體資產所在地¹⁶。</p>	
Internal scenario assumptions 內部情景假設	<p>Assuming internal factors such as main business, major production base/industrial park locations, asset scale, and risk response measures remain unchanged, the analysis focuses on the specific physical risks faced by the Group's assets under the disaster levels of each scenario.</p> <p>假設主營業務、主要生產基地/產業園位置、資產規模、風險應對措施等內部因素不變，僅分析在各情景的災害水平下，公司持有資產面臨的特定實體風險情況。</p>	
Data estimation assumptions 數據估算假設	<p>For this analysis, we will use the asset values¹⁷ of the three individual subsidiaries as of 31 December 2024.</p> <p>取上述3家單體子公司2024年12月31日的資產價值¹⁷用於分析。</p>	

¹⁴Under the high-emission scenario, the frequency and intensity of extreme weather events are likely to increase. Based on data availability and consistency, selecting the high-emission scenarios of RCP4.5 and RCP8.5 can better assess the Company's climate resilience.

¹⁴ 在高排放情景下，極端天氣事件發生的頻率和強度變大的可能性增強，以及基於數據可得性和一致性，選擇 RCP4.5 和 RCP8.5 中高排放情景能更好評估公司氣候韌性。

¹⁵The Group conducted a comprehensive accounting of carbon emissions for the operations of three subsidiaries—Henan XLX, Xinjiang XLX, and Jiangxi XLX—in 2023.

¹⁵ 本集團對 2023 年度河南心連心、新疆心連心、江西心連心 3 家單體子公司的自身運營階段的碳排放進行了全面核算。

¹⁶These three subsidiaries account for approximately 74% of the Group's total physical assets. Other subsidiaries not included in the analysis are also mainly located nearby, making them highly representative.

¹⁶ 該 3 大子公司單體實體資產合計約佔公司總實體資產 74%，且未納入考量的其他分子公司實際運營地也主要集中在附近，故具有較強代表性。

¹⁷The assets analysed include fixed assets, construction in progress and engineering materials, investment properties, intangible assets, and inventory.

¹⁷ 此次分析的資產包含固定資產、在建工程與工程物資、投資性房地產、無形資產與存貨。

● Transition risks/Opportunities 轉型風險 / 機遇

Scenario ¹⁸ 情景 ¹⁸ 名稱	SSP1-2.6	SSP2-4.5
Scenario description 情景描述	<p>This scenario assumes the implementation of a global deep emissions reduction strategy, accelerating the energy transition. CO₂ emissions are projected to decline from 2020, reaching net zero by 2100.</p> <p>該情景假設全球推行深度減排策略，加速能源轉型，在此情景下二氧化碳排放量從2020年開始下降，到2100年降至零。</p>	<p>Another scenario assumes sluggish progress towards sustainable development goals despite international cooperation. CO₂ emissions are projected to start decreasing around 2045, reaching half of the 2050 target levels by 2100.</p> <p>該情景假設各國雖共同努力實現可持續發展目標，但進展緩慢；在此情景下，二氧化碳排放量從2045年左右開始下降，到2100年達到2050年水平的一半。</p>
Projected end-of-century temperature rise 預估世紀末溫升	< 2°C	2-3°C
Time dimension 時間維度	<p>Base year: 2023¹⁹ 基準年: 2023年¹⁹</p> <p>Short-term horizon: 2025-2028 短期: 2025年-2028年</p> <p>Medium-term horizon: 2029-2040 中期: 2029年-2040年</p> <p>Long-term horizon: 2041-2050 長期: 2041年-2050年</p>	
Analysis boundary 分析邊界	<p>XLX Group's Main Businesses</p> <p>心連心集團主營業務</p>	
Internal scenario assumptions 內部情景假設	<p>It is assumed that the Group's operating markets and main businesses remain unchanged for the time being, with the operational carbon neutrality pathway serving as the internal scenario.</p> <p>假設本集團的經營市場、主營業務等暫時保持現有不變，將運營層面碳中和路徑作為內部情景。</p>	
Data estimation assumptions 數據估算假設	<p>The total GHG emissions for 2023 used in the analysis cover the Scope 1 and Scope 2 emissions of the three individual subsidiaries: Henan XLX, Xinjiang XLX, and Jiangxi XLX.</p> <p>分析中所用的2023年溫室氣體排放總量涵蓋了河南心連心、新疆心連心、江西心連心3家單體子公司的範圍1和範圍2排放量。</p>	

¹⁸Under the high-emission scenario, the frequency and intensity of extreme weather events are likely to increase. Based on data availability and consistency, selecting the high-emission scenarios of RCP4.5 and RCP8.5 can better assess an enterprise's climate resilience.

¹⁸ 在高排放情景下，極端天氣事件發生的頻率和強度變大的可能性增強，以及基於數據可得性和一致性，選擇 RCP4.5 和 RCP8.5 中高排放情景能更好評估企業氣候韌性。

¹⁹The Group, in accordance with domestic and international authoritative greenhouse gas verification standards, conducted a comprehensive accounting of carbon emissions for its operations and value chain, including 21 factories, in 2023. We have obtained third-party verification certification. In view of data availability and consistency, the underlying financial data involved in this physical and transition risk analysis are sourced from the 2023 fiscal year.

¹⁹ 本集團依據國內外權威的溫室氣體核查標準，對 2023 年度包括 21 家工廠在內的自身運營與價值鏈中的碳排放進行了全面核算並獲得第三方核查認證。考慮數據可得性與一致性，此次實體風險和轉型風險分析中涉及的底層財務數據均源於 2023 年度。

SCENARIO SELECTION AND ASSUMPTIONS

情景選擇與假設

● Physical risks 實體風險

The Group employs advanced climate models and datasets²⁰ to assess the asset value risk exposure associated with various climate risks. This assessment serves as a specific indicator for measuring the financial impact of climate risks on our operations. Based on internal research and scenario analysis outcomes, it is determined that the majority of the Group's assets are not exposed to extremely high or high risks in the short, interim, or long term under both the RCP4.5 and RCP8.5 scenarios. As a result, overall physical risk remains manageable.

本集團利用專業的氣候模型與數據集²⁰，得出各風險下的資產價值風險敞口，並以此作為衡量氣候風險對財務影響的具體指標。基於內部調研及情景分析結果，我們發現本集團大部分資產短、中、長期在RCP4.5和RCP8.5情景下未暴露於極高/高風險中，整體實體風險可控。

Asset Risk Exposure to Physical Risks under the RCP4.5 Scenario
RCP4.5 情景下實體風險的資產風險暴露情況

Base/ industrial park 基地 / 產業園	Time dimension 時間維度	Risk type ²¹ 風險類別 ²¹											
		Chronic risks 慢性風險						Acute risks 急性風險					
		Water scarcity 水短缺	Sea level rise 海平面上升	Warming trend 變暖趨勢	Wet trend 濕潤趨勢	Wind trend 風速趨勢	Dry trend 乾燥趨勢	Extreme heat 極端高溫	Extreme precipitation 極端降水	Flash drought 驟旱	Tropical cyclone 熱帶氣旋	River flooding 河流洪水	Coastal flooding 沿海洪水
Henan XLX 河南心連心	Baseline 基線	Mid 中		Low 低	Low 低	Low 低	Mid 中	Mid 中	Mid 中	Mid 中	None 無	None 無	None 無
	2030 2030年	Mid 中	None 無	Low 低	Low 低	Low 低	Mid 中	Low 低	Mid 中			None 無	None 無
	2050 2050年	Mid 中	None 無	High 高	Low 低	Low 低	High 高	Mid 中	Mid 中			None 無	None 無
Xinjiang XLX 新疆心連心	Baseline 基線	High 高		Low 低	Low 低	Low 低	Mid 中	Low 低	Low 低	High 高	None 無	None 無	None 無
	2030 2030年	High 高	None 無	Low 低	Low 低	Low 低	High 高	Low 低	Low 低			None 無	None 無
	2050 2050年	High 高	None 無	Mid 中	Low 低	Low 低	Mid 中	Low 低	Low 低			None 無	None 無
Jiangxi XLX 江西心連心	Baseline 基線	Low 低		Low 低	Mid 中	Low 低	Low 低	Mid 中	Mid 中	High 高	Mid 中	None 無	None 無
	2030 2030年	Low 低	None 無	Mid 中	Mid 中	Low 低	Low 低	Low 低	Mid 中			None 無	None 無
	2050 2050年	Low 低	None 無	Mid 中	Mid 中	Low 低	Low 低	High 高	Mid 中			None 無	None 無

²⁰The assessment model utilised is derived from the Entity Risk Assessment Model of Miotech (<https://www.miotech.com/zh-CN>), which allows for benchmarking and analysis of climate risk levels among industry enterprises.

²⁰ 評估模型源於妙盈科技 (<https://www.miotech.com/zh-CN>) 實體風險評估模型，其可實現行業企業間氣候風險水平的對標分析。

²¹The chronic and acute risk analysis results for each base are as follows: Red indicates high risk, blue indicates medium risk, orange indicates low risk, green indicates no risk, and "-" indicates no analysis due to data availability issues.

²¹ 各基地慢性與急性風險分析結果：紅色表示高風險、藍色表示中風險、橙色表示低風險、綠色表示無風險、「-」因數據可得性問題未做分析。

Asset Risk Exposure to Physical Risks under the RCP8.5 Scenario
RCP8.5 情景下實體風險的資產風險暴露情況

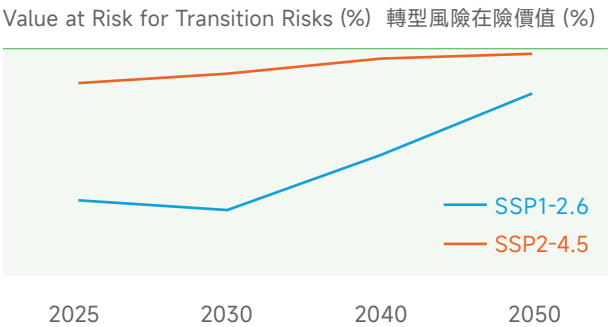
Base/ industrial park 基地 / 產業園	Time dimension 時間維度	Risk type 風險類別											
		Chronic risks 慢性風險						Acute risks 急性風險					
		Water scarcity 水短缺	Sea level rise 海平面上升	Warming trend 變暖趨勢	Wet trend 濕潤趨勢	Wind trend 風速趨勢	Dry trend 乾燥趨勢	Extreme heat 極端高溫	Extreme precipitation 極端降水	Flash drought 驟旱	Tropical cyclone 熱帶氣旋	River flooding 河流洪水	Coastal flooding 沿海洪水
Henan XLX 河南心連心	Baseline 基線	Mid 中		Low 低	Low 低	Low 低	Mid 中	Mid 中	Mid 中	Mid 中	None 無	None 無	None 無
	2030 2030年	Mid 中	None 無	Mid 中	Low 低	Low 低	High 高	Low 低	Mid 中			None 無	None 無
	2050 2050年	Mid 中	None 無	High 高	Low 低	Low 低	Mid 中	Low 低	Mid 中		None 無	None 無	None 無
Xinjiang XLX 新疆心連心	Baseline 基線	High 高		Low 低	Low 低	Low 低	Mid 中	Low 低	Low 低	High 高	None 無	None 無	None 無
	2030 2030年	High 高	None 無	Low 低	Low 低	Low 低	Mid 中	Low 低	Low 低			None 無	None 無
	2050 2050年	High 高	None 無	High 高	High 高	Low 低	Mid 中	Low 低	Low 低		None 無	None 無	None 無
Jiangxi XLX 江西心連心	Baseline 基線	Low 低		Low 低	Mid 中	Low 低	Low 低	Mid 中	Mid 中	High 高	Mid 中	None 無	None 無
	2030 2030年	Low 低	None 無	Mid 中	Mid 中	Low 低	Low 低	Low 低	Mid 中			None 無	None 無
	2050 2050年	Low 低	None 無	Mid 中	Mid 中	Low 低	Mid 中	Low 低	Mid 中		None 無	None 無	None 無

Transition Risks 轉型風險

The Group uses professional climate models and datasets to calculate its additional carbon reduction amount and Transition Climate Value-at-Risk (CVaR)²², which measure the financial impact of climate risks/opportunities. Scenario analyses show that without carbon reduction measures, climate change will bring more risks and pressures rather than opportunities.

本集團利用專業的氣候模型與數據集，計算出公司的額外碳減排量和轉型氣候在險價值 (Climate Value-at-Risk, CVaR)²²，並以此作為衡量氣候風險 / 機遇對財務影響的具體指標。基於情景分析，我們發現若本集團不採取任何減碳舉措，氣候變化給我們帶來的將是更多風險與壓力而非機遇。

Changes in CVaR from 2025 to 2050 under Low-Emission and High-Emission Scenarios
2025 年至 2050 年低排放與高排放情景下氣候在險價值 (CVaR) 變化情況



²² Carbon Value at Risk (CVaR): This metric is used to estimate the ratio of costs incurred by carbon prices to the enterprise value within a specific time frame.

²² 碳在險價值 (CVaR)：用於估量在特定時間範圍內，企業因碳價造成的成本佔其企業價值的比值。

IMPACT ASSESSMENT AND RESPONSE MEASURES

影響評估與應對措施

In consideration of the external environment and the current state of production and operations, the Group continuously monitors and evaluates climate-related physical risks, transition risks, and transformation opportunities. We have developed and implemented relevant response plans and initiatives aimed at enhancing our climate resilience while effectively adapting to and mitigating climate risks. This proactive approach enables us to create and capitalise on additional climate-related opportunities. Furthermore, we have invested in comprehensive property all-risk insurance to hedge against potential losses from extreme weather events that may impact our operations and asset values. This strategy not only safeguards our assets but also reinforces business continuity and stability in an ever-changing climate landscape.

結合外部環境和生產經營現狀，本集團對氣候相關實體風險、轉型風險和轉型機遇開展持續跟蹤與評估，制定並實施相關的應對方案和舉措，在適應和緩釋氣候風險的同時增強本集團的氣候韌性，以爭取創造和把握更多的氣候相關機遇。此外，公司通過購買財產一切險對沖極端天氣事件可能對運營與資產價值造成的損失，進一步保障業務的連續性與穩定性。

XLX Group's Physical Climate Risk Identification and Response Measures
心連心集團氣候實體風險識別與應對措施

Risk type 風險類型	Time period 時間週期	Potential risk description 潛在風險描述	Value chain impact ²³ 價值鏈影響 ²³	Financial impact 財務影響	Risk response measures 風險應對措施
Acute risks 急性風險	Short-term, medium-term, long-term horizons 短期、中期、長期	<p>Extreme weather events, such as extreme high temperatures, extreme low temperatures, heavy precipitation, typhoons, and sudden droughts, may significantly impact production bases. These impacts include damage to equipment and facilities, interruptions in production processes, and reductions in production efficiency. Consequently, such disruptions directly lower production output value while increasing the costs associated with equipment repair and replacement</p> <p>極端高溫、極端低溫、極端降水、颱風、驟旱等極端天氣事件可能對生產基地產生重大影響，具體包括設備設施損壞、生產流程中斷、生產效率降低，直接降低了生產產值，增加設備維修與更換的成本</p> <p>For instance, extreme low temperatures in Northeast China can delay the growth of crops. Similarly, drought conditions in the Huang-Huai-Hai Plain region may hinder crop development. Furthermore, flooding in this area can result in nutrient loss for corn crops. This situation prompts farmers to apply additional urea to replenish nitrogen levels and support seedling growth. As a result, there is an increase in urea usage that disrupts the urea market</p> <p>東北地區極端低溫、黃淮海平原地區乾旱推遲作物生長發育，黃淮海平原地區洪澇引發玉米脫肥，導致農民追施尿素補氮提苗，增加尿素使用量，從而擾動尿素市場</p>	<p>Production and operations 生產運營</p> <p>Downstream of the value chain 價值鏈下游</p>	<p>Increase production and management costs 生產與管理成本增加</p> <p>Cause asset impairment losses 資產減值損失</p> <p>Increase property and employee insurance expenses 財產及員工保險支出增加</p> <p>Decrease operating income 營業收入減少</p> <p>Cause revenue fluctuations due to fluctuations in fertiliser demand and prices 肥料需求與價格波動導致收入波動</p>	<p>Formulated the Emergency Response Plan for Flood Prevention, Emergency Handling Plan for High-Temperature Heatstroke, and Emergency Management Plan for Natural Hazards, which stipulate procedures, personnel arrangements, and material management methods</p> <p>制定《防汛應急處置方案》《高溫中暑應急處置方案》《自然災害應急處置方案》，規定了應急回應工作程序、人員安排和物資管理方法</p> <p>Developed a Rainy Season Construction Plan for each project, specifying preparations, on-site arrangements, technical measures, and management during the rainy season</p> <p>每個工程項目制定自身《雨季施工方案》，對雨期準備、現場準備、主要分項工程雨季施工技術措施、雨季施工管理進行了明確規定</p> <p>Identified hazardous natural conditions like extreme temperatures and thunderstorms</p> <p>辨識各類項目包括極端高溫、極端低溫、雷暴等在內的危險、有害自然條件</p> <p>Conducted emergency drills to enhance employees' response capabilities</p> <p>組織災害演練等應急演練，提高員工應急處置能力</p> <p>Purchased commercial insurance for employees</p> <p>為本集團員工購買商業保險</p>

²³ The impact links in the value chain primarily include: the production and operation stage, encompassing all processes from product design through delivery; the upstream supply chain stage, covering all activities from raw material procurement through product manufacturing, with a focus on supplier management and sourcing of raw materials; and the downstream value chain stage, involving activities following product manufacture, including distribution, sales, and after-sales services.

²³ 價值鏈影響環節主要涵蓋：生產運營環節，即從產品設計到交付的各個環節；供應鏈上游環節，即從原材料採購到產品製造的各個環節，主要包括供應商和原材料入庫前管理；價值鏈下游環節，即產品製造後的銷售與服務環節，包括分銷、銷售和售後服務等環節。

Risk type 風險類型	Time period 時間週期	Potential risk description 潛在風險描述	Value chain impact 價值鏈影響	Financial impact 財務影響	Risk response measures 風險應對措施
Chronic risks 慢性風險	Medi-um-term and long-term horizons 中期、長期	<p>Water shortages, warming trends, and drying trends will exacerbate water scarcity at each production base and affect crop growth, thereby impacting the stability of production and demand</p> <p>水短缺、變暖趨勢、乾燥趨勢會導致各生產基地水短缺現象加劇，同時會影響農作物生長，從而影響生產與需求穩定性</p>	<p>Production and operations 生產運營</p> <p>Downstream of the value chain 價值鏈下游</p>	<p>Increase pro-duction and management costs 生產與管理成本增加</p>	<p>Implemented water consumption quotas, conduct water resource assessments, and established water intake permit mechanisms in line with national and local requirements to control water intake at the source</p> <p>按照國家及地方要求，實行項目行業水耗定額、水資源論證、取水許可機制，從源頭上進行取水總量控制</p> <p>Formulated and enforced the Regu-lations on Integrated Water Resource Management for Group Companies to achieve efficient utilisation of water resources</p> <p>制定並執行《集團公司水資源一體化管理規定》，實現水資源高效利用</p> <p>Carried out water-saving renovations, such as building reclaimed water reuse systems and implementing mist-elimination and water-saving upgrades for cooling towers, to collect and treat circulating water and sewage within production bases</p> <p>開展節水項目改造，如建設中水回用項目、循環水冷卻塔消霧節水改造項目等，收集和處理生產基地園區的循環水、排污水</p>

XLX Group’s Transitional Climate Risk Identification and Response Measures
心連心集團氣候轉型風險識別與應對措施

Risk type 風險類型	Time period 時間週期	Potential risk description 潛在風險描述	Value chain impact 價值鏈影響	Financial impact 財務影響	Risk response measures 風險應對措施
Policies and regu-lations 政策法規	Short-term, medi-um-term, long-term horizons 短期、中期、長期	<p>The tightening of national climate policies, such as the Technical Guidelines for Energy Conserva-tion, Carbon Reduction, and Policy Framework on Stringent Energy Efficiency Constraints to Accel-erate Energy Conservation and Carbon Reduction in Key Sectors, may lead to increased carbon emission management costs</p> <p>國家氣候政策趨嚴，如《高耗能行業重點領域節能降碳改造升級實施指南》《關於嚴格能效約束推動重點領域節能降碳的若干意見》等，可能導致碳排放管理成本增加</p>	<p>Upstream of the supply chain 供應鏈上游</p> <p>Production and operations 生產運營</p>	<p>Increase pro-duction and management costs 生產與管理成本增加</p> <p>Increase cap-ital expend-iture 資本支出增加</p>	<p>Closely monitored legal and policy changes 及時關注法律法規和政策變動</p> <p>Increased investment in energy-saving upgrades, such as renovating sewage tank circulating water pumps and installing magnetic levitation fans 加大節能技改投入，如改造污水池循環水泵、投用磁懸浮風機等</p> <p>Established and used the XLX In-telligent Manufacturing Platform to monitor, analyse, and warn of energy consumption and carbon emission data, promoting energy-saving and emission reduction</p> <p>建成並使用心連心智能製造平臺，對能耗和碳排放數據進行監控、分析、預警，促進節能減排</p> <p>Strictly followed local regulatory re-quirements and the HKEX ESG Report-ing Code for information disclosure to avoid issues like fraudulent information disclosure</p> <p>嚴格參照當地監管要求和聯交所ESG報告守則進行信息披露，避免出現虛假信息披露等問題</p>

Risk type 風險類型	Time period 時間週期	Potential risk description 潛在風險描述	Value chain impact 價值鏈影響	Financial impact 財務影響	Risk response measures 風險應對措施
Technologies 技術	Short-term, medium-term, long-term horizons 短期、中期、長期	<p>If the Group fails to develop and adopt more efficient, lower-energy-consuming energy-saving technologies or invest in more efficient energy-saving production equipment, the expansion of production scale will lead to a rapid increase in energy consumption and the cost of externally purchased energy</p> <p>如不研發和使用更高效、更低能耗的節能技術或採用更高效的節能生產設備，生產規模擴大將導致能源消耗快速增長和外購能源成本的快速增加</p> <p>Failed investments in new technologies and equipment that cannot be commercially scaled up will result in additional research and development costs</p> <p>新技術和設備無法實現規模化商業應用的失敗投資將導致額外的研發成本支出</p> <p>Increased R&D expenditure on low-carbon and energy-efficient technologies will reduce the Group's operating profit</p> <p>低碳節能技術研發支出的增加，將降低本集團的經營利潤</p>	Production and operations 生產運營	<p>Increase production and management costs 生產與管理成本增加</p> <p>Increase R&D costs 研發成本增加</p> <p>Decrease profit 利潤減少</p>	<p>Increased R&D investment in high-efficiency fertilisers and differentiated products to cut fertiliser use 加大研發投入，關注高效肥和差異化產品的研發，持續降低肥料用量</p> <p>Invested more in energy-saving upgrades and adopt Advanced Process Control (APC) to reduce production energy use and carbon emissions 加大節能技改投入，採用先進程序控制(APC)等節能降耗技術，降低生產過程的能耗和碳排放量</p> <p>Strengthened feasibility studies on low-carbon and energy-saving technologies R&D and application to minimise investment failure risks 加強低碳節能技術研發與應用的可行性研究，降低投資失敗風險</p>
Market 市場	Medium-term and long-term horizons 中期、長期	<p>The downstream market is showing a preference for green, low-carbon products. Failure to manage product carbon footprints may shrink market share and negatively impact operating revenue</p> <p>下游市場逐步顯示出對綠色低碳產品的青睞，如果本集團未能及時管理產品碳足跡，市場份額可能會縮減進而對營業收入產生負面影響</p>	Downstream of the value chain 價值鏈下游	Decrease revenue 營收減少	<p>Strengthened customer communication to anticipate their preferences for product green and low-carbon attributes 加強與客戶溝通，提前預判客戶對產品綠色低碳屬性的偏好</p> <p>Increased exploration and research on product carbon footprints 加大產品碳足跡的探索與研究</p> <p>Boosted photovoltaic and biomass power generation and purchased volume of green power and renewable energy certificates (RECs) 加大光伏發電量、生物質發電量、及綠電綠證外購量</p>
Reputation 聲譽	Short-term, medium-term, long-term horizons 短期、中期、長期	<p>Stakeholders have increasingly strict requirements for the Group's ESG performance and climate-related information disclosure. Failure to properly address these requirements may cause reputational damage, reducing brand value and operating income</p> <p>監管部門、投資人及客戶等利益相關方對本集團ESG表現及氣候相關信息的披露要求日益嚴格，如果本集團未能妥善回應這些要求，可能會導致聲譽受損，進而降低品牌價值和營業收入</p>	Production and operations 生產運營	<p>Increase production and management costs 生產與管理成本增加</p> <p>Decrease revenue 營收減少</p>	<p>Actively responded to stakeholders' concerns about the Group's ESG and climate aspects through ESG reports, official website disclosures, and roadshows. Also, we improved disclosure transparency, timeliness, and accuracy while enhancing ESG and climate governance</p> <p>通過ESG報告、官網信息披露、參與路演等方式積極回應利益相關方對本集團在ESG和氣候方面的關注，在提升自身ESG和氣候治理表現的同時提高信息披露的透明度、及時性和準確性</p>

XLX Group's Climate Opportunity Identification and Response Measures
心連心集團氣候機遇識別與應對舉措

Risk type 風險類型	Time period 時間週期	Potential risk description 潛在風險描述	Value chain impact 價值鏈影響	Financial impact 財務影響	Risk response measures 風險應對措施
Policies 政策	Short-term, medium-term, long-term horizons 短期、中期、長期	<p>The state has issued the Guidelines on Promoting High-Quality Development of the Petrochemical and Chemical Industry During the 14th Five-Year Plan Period and the National Agricultural Green Development Plan for the 14th Five-Year Period, proposing clean production, green manufacturing, energy-saving, and carbon reduction in key petrochemical and chemical areas, and continues to promote fertiliser and pesticide reduction</p> <p>國家出臺《關於「十四五」推動石化化工行業高質量發展的指導意見》《「十四五」全國農業綠色發展規劃》，提出發展清潔生產和綠色製造，推動石化化工行業重點領域節能降碳，繼續推進化肥農藥減量增效</p>	<p>Production and operations 生產運營</p> <p>Downstream of the value chain 價值鏈下游</p>	<p>Increase R&D costs 研發成本增加</p> <p>Increase operating revenue 營業收入增加</p>	<p>Established a GM-led energy-saving group, implemented the energy-saving target responsibility system, and advanced the Group's "Three-Year Plan" and "One-Year Plan" in energy management</p> <p>成立由總經理作為最高管理人員的節能工作領導小組，落實節能目標責任制，不斷推進本集團在能源管理方面的「三年規劃、一年計劃」落實</p> <p>Strengthened R&D, production, and promotion of high-efficiency and differentiated fertilisers</p> <p>加強高效肥及差異化產品的研發、生產和推廣</p>
Market 市場	Medium-term and long-term horizons 中期、長期	<p>The market shows concern for green chemical products like high-efficiency and eco-organic fertilisers and requires chemical product carbon footprint certification</p> <p>市場已展現出對綠色化工產品的關注和偏好，如對高效肥、生態有機肥的青睞以及對化工產品碳足跡認證的要求等</p>	<p>Production and operations 生產運營</p> <p>Downstream of the value chain 價值鏈下游</p>	<p>Increase R&D costs 研發成本增加</p> <p>Increase operating revenue 營業收入增加</p>	<p>Mainly promoted organic fertilisers with humic acid and amino acids, and magnesium-containing functional fertilisers. These improved soil structure, enhance crop disease resistance, and boost yields in the Southwest</p> <p>主推腐植酸、氨基酸類有機肥及含鎂功能肥，針對西南地區土壤問題，改善土壤結構，提高作物抗病能力和產量</p> <p>Enhanced product innovation and R&D, and increase promotion of high-efficiency fertilisers, differentiated products, and innovative services</p> <p>通過強化產品創新及技術研發，加大對高效肥、差異化產品及創新服務的推廣</p>
Technologies 技術	Short-term, medium-term, long-term horizons 短期、中期、長期	<p>Due to industry characteristics, the Group has high comprehensive energy consumption and significant carbon emissions. Improving energy utilisation efficiency can effectively promote operational carbon reduction and substantially cut overall energy costs</p> <p>因行業屬性導致本集團綜合能耗高且碳排放規模顯著，提升能源利用效率不僅能有效促進運營層面的碳減排，還能大幅度削減本集團的整體能源成本</p>	<p>Production and operations 生產運營</p>	<p>Increase R&D costs 研發成本增加</p> <p>Caused short-term capital expenditures 短期資本支出</p>	<p>Comprehensively explored energy-saving potential through technology and solution R&D, equipment renewal, process optimisation, and management system upgrades. We continuously enhanced energy utilisation efficiency to reduce product-specific energy consumption</p> <p>通過技術與解決方案研發創新、設備更新換代、工藝流程優化及管理體系升級等多元化手段，全面發掘並把握節能潛力，持續增強能源利用效率，有效降低單位產品的能耗水平</p>

CLIMATE ADAPTATION AND RESPONSE

氣候適應與應對

XLX Group provides one-stop solutions for the entire cycle of fertiliser R&D, production, sales, and after-sales services, serving the whole agricultural industry chain. We actively develop emerging businesses like new energy materials and circular economy, promoting green production, products, and usage. We adopt green processes upstream, cut energy use and emissions midstream, and promote green fertilisation downstream for agricultural sustainability and the transformation of the fertiliser industry.

本集团通过为行业提供贯穿化肥研发、生产、销售、售后全周期的一站式解决方案，服務於整個農業產業鏈上的企業和農戶，並積極佈局新能源材料、循環經濟等新興業務，積極推動生產綠色化、產品綠色化和使用綠色化。我們通過上游採用綠色生產工藝、中游降低生產過程中的能耗與排放、下游引導綠色施肥理念，助力農業綠色可持續發展，持續推動化肥行業變革。

Over the next three years, the Group will continue to enhance its ability to prevent and adapt to physical climate risks. Through measures such as technological and process innovation, and the innovation of low-carbon products and solutions, we aim to break through the bottlenecks in climate risk management and continuously improve our capabilities in “mitigating” and “adapting” to climate change. This will contribute to the high-quality development of the enterprise and the transformation and upgrading of the industry.

未來三年，本集團將持續加強實體氣候風險的防範和適應能力，通過技術與工藝創新、低碳產品與解決方案創新等舉措，突破氣候風險管理中的瓶頸制約，不斷提升自身對於氣候變化的「減緩」和「適應」能力，為企業的高質量發展和行業的轉型升級貢獻力量。

Case 案例

Supply chain climate risk management 供應鏈氣候風險管理

The Group has successfully integrated climate change considerations into its supply chain risk management framework, actively striving to develop a green, low-carbon, and resilient supply chain. In support of this initiative, the Group has established the Emergency Response Plan for Coal Procurement. Its subsidiaries have also developed specific management measures, including the Jiangxi Company's Flood Season Dual-Coal Supply Assurance Implementation, Coal Quality Control Plan for Plum Rain & Windy Seasons. These measures are designed to effectively mitigate the impacts of physical climate risks—such as extreme precipitation, water shortages, floods, typhoons, and heavy fog—on coal supply stability. Furthermore, considering the procurement cost budget and the feasibility of transportation channels, the Group requires some suppliers to diesel vehicles compliant with National 5+ standards or LNG/CNG vehicles compliant with National 6+ standards for material transportation. This helps to reduce greenhouse gas and other exhaust emissions during the transportation of materials, thus contributing to the development of a green supply chain.

本集團已將氣候變化納入供應鏈風險管理機制，積極構建綠色低碳的韌性供應鏈。本集團制定《煤炭採購應急預案》，下屬子公司編制《江西公司汛期兩煤保供實施方案》《枯水期兩煤保供措施》《梅雨多風季節煤炭質量管控方案》等管理辦法，以更好地應對極端降水、水短缺、洪水、颱風、大霧等氣候實體風險對煤炭供應穩定性的影響。此外，本集團結合採購成本預算和運輸渠道可行性，要求部分供應商採用國五及以上柴油車或國六及以上燃氣車運輸物資，減少物資運輸過程的溫室氣體和其他廢氣排放，以助力綠色供應鏈建設。

Case
案例

Boosting green agricultural development by new high-efficiency fertilisers 新型高效肥助力農業綠色發展

To advance the green and low-carbon development of agriculture, XLX Group has consistently maintained its brand positioning as “China's High-efficiency Fertilisers”. Guided by the core principles of “fertiliser reduction, efficiency enhancement, and quality improvement”, the Group has intensified its efforts in researching and developing new high-efficiency fertiliser products. In collaboration with leading scientific research institutions, including the Chinese Academy of Sciences and the Chinese Academy of Agricultural Sciences, XLX Group has developed and promoted a range of high-efficiency products. These innovations include Water-Triggered Membrane Controlled-Release Fertiliser, Heiliwang Humic Acid-Enhanced Fertiliser, Zhenweiduo High-Tower Nitro-Sulfur Compound Fertiliser, Multi-Nutrient Water-Soluble Fertiliser (WSF). Through the R&D and promotion of various new high-efficiency fertilisers. We guide farmers to apply fertilisers precisely, reduce usage while increasing efficiency, and achieve maximum output with minimum input, contributing to the green and healthy development of China's agriculture.

為推動農業綠色低碳發展，心連心集團始終堅持「中國高效肥倡導者」的品牌定位，以「減肥、增效、提質」為核心加大新型高效肥產品的研發力度，先後與中科院、農科院等科研院所開展合作，針對不同區域、不同作物研發推廣了水觸膜控失肥、黑力旺腐植酸、珍維多高塔硝硫基、水溶肥等系列高效產品。通過研發和推廣各種新型高效肥產品。本集團始終引導農民精準施肥、減施增效，讓農民用最少的投入，獲得最大的產出，為我國農業綠色健康發展做出貢獻。

Ecology and Biodiversity Protection 生態與生物多樣性保護

XLX Group upholds the concept of ecological civilisation and strictly complies with the requirements of documents such as the Convention on Biological Diversity, the Kunming Declaration, and the Judicial Protection of Biodiversity in China. While pursuing economic benefits, we actively fulfil our responsibilities in ecological environment and biodiversity protection. In 2024, we had no biodiversity risks.

心連心集團秉持生態文明理念，嚴格遵守生物多樣性公約、《昆明宣言》《中國生物多樣性司法保護》等文件要求，在追求經濟效益的同時積極履行生態環境與生物多樣性保護職責。2024年，本集團不存在生物多樣性風險。



In terms of soil protection and remediation, we promptly dispose of solid waste to prevent direct contact between solid waste and soil. We conduct annual soil hazard inspections and tests, and use humic acid products to regulate soil pH. Additionally, we have developed and applied dust recovery and treatment technologies for granulation towers to ensure that soil pollution remains within controllable limits. We also plant plants within the factory area to improve the ecological environment quality.

在土壤保護和修復方面，本集團及時處置固體廢棄物，避免固體廢棄物與土壤直接接觸。我們開展年度土壤隱患排查及檢測，並運用腐植酸產品調節土壤酸鹼度，開發和應用造粒塔粉塵回收治理技術，確保土壤污染在可控範圍內。同時，我們在廠區範圍內種植樹木花草，提高廠區生態環境質量。

For water quality protection, we have established sewage treatment plants to conduct secondary treatment of sewage, ensuring that the water quality at the drainage outlets meets the survival conditions for fish.

在水質保護方面，我們設立污水處理廠對污水進行二次處理，排水口水質滿足魚類生存條件。

Regarding forest resource protection, each project unit avoids selecting locations near forests and wetlands for project construction.

在森林資源保護方面，各項目單位均規避在森林和濕地附近選址進行項目建設。



Case 案例

Application of granulation tower dust recovery and treatment technology to reduce dust emission 應用造粒塔粉塵回收治理技術，減少粉塵外泄

To mitigate the “Fertiliser Burn” caused by urea dust leakage, we developed the Granulation Tower Dust Recovery and Treatment Technology. This technology enables the recovery and treatment of dust from urea and compound fertiliser granulation towers. Following its implementation, we have achieved an annual recovery of approximately 800 tons of urea dust, with dust particle concentrations reduced to below 20 mg/m^3 (against an emission standard of 30 mg/m^3). This has eliminated emission tailing and contributed to the healthy growth of crops and vegetation.



Granulation Tower Dust Recovery System
造粒塔粉塵回收裝置

為減少尿素粉塵外泄造成的「燒苗」現象，本集團自主研究開發造粒塔粉塵回收治理技術，對尿素和複合肥造粒塔粉塵進行回收治理。我們在降低顆粒物排放的基礎上，實現回收尿素粉塵約 800 噸 / 年，粉塵顆粒降至 20 mg/m^3 以下（粉塵顆粒排放標準為 30 mg/m^3 ），消除排放拖尾，為保護農作物和綠植健康生長做出貢獻。

Case
案例

Schools of fish swimming at the sewage outlet 污水處理終端游魚成群

To ensure water quality and aquatic ecological safety, we have established sewage treatment plants at each production base. After initial treatment, the sewage is discharged into municipal sewage treatment plants for secondary treatment. It is then rigorously monitored and analysed by a third-party professional institution before final discharge. The water quality at the sewage outlets of our three major production bases has reached fishable standards.

為保障水質及水生生態安全，本集團在各生產基地設污水處理廠。污水經處理後，排入地方政府管理的污水處理廠二次處理，再由第三方專業機構嚴格監測分析，達標後排放。本集團三大生產基地的污水排水口，其水質均已達到養魚的標準。



Schools of Fish Swimming at the Sewage Outlet
污水處理終端魚群遊動

Performance 績效

As of the end of 2024 截至 2024 年末



The greening rates for the Henan XLX and Xinjiang XLX factory areas reached **28%** and **20.9%** respectively

河南心連心與新疆心連心廠區綠化率分別為 **28%** 和 **20.9%**



In the soil of the Henan XLX factory area, the concentrations of arsenic and its compounds, cadmium and its compounds, chromium and its compounds, tetrachloroethylene, and 1,1,2-trichloroethane reached **8.42 mg/kg**, **0.61 mg/kg**, **2.53 mg/kg**, **4.05×10^{-3} mg/kg**, and **0.35×10^{-3} mg/kg**, respectively. No phenolic compounds or sulfides were detected

河南心連心廠區土壤中的砷及其化合物濃度為 **8.42mg/kg**，鎘及其化合物濃度為 **0.61mg/kg**，鉻及其化合物濃度為 **2.53mg/kg**，四氯乙烯濃度為 **4.05×10^{-3} mg/kg**，1,1,2-三氯乙烷濃度為 **0.35×10^{-3} mg/kg**，酚類化合物和硫化物均未測出

XLX Group's Pursuit of Innovation Leadership and High Efficiency

創新引領 高效心連心

XLX Group consistently prioritises market demand, focusing on the fields of green chemical energy conservation and environmental protection. The Group is dedicated to the research, development, and pilot-scale transformation of innovative fertilisers, new chemical materials, and other products and solutions. By refining product quality and deeply understanding market needs, we offer high-quality products and professional services that facilitate the green, low-carbon, and sustainable development of the fertiliser industry.

心連心集團始終堅持以市場需求為導向，聚焦綠色化工節能與環保領域，專注新型肥料、化工新材料等產品與解決方案的研發和中試轉化，精進質量、洞察需求，為市場呈獻優質產品與專業服務，助力化肥行業向綠色、低碳、可持續方向發展。

SDGs Addressed in this Chapter:

本章所回應的 SDGs:



Major Material Topics of Sustainability Covered in this Chapter:

本章所涉及的重大可持續發展議題:

- ◆ Product and Solution Innovation
產品與解決方案創新
- ◆ Chemicals Management
化學品管理
- ◆ Intellectual Property Protection
知識產權保護
- ◆ Product Quality and Safety
產品質量與安全
- ◆ Customer Rights and Interests Protection
客戶權益保護

R&D Innovation

研發與創新

XLX Group is committed to increasing its investment in research and development (R&D) innovation platforms. The company has established advanced laboratories, pilot facilities, and other R&D platforms. These platforms gather top-tier scientific research talent. We strengthen collaboration between industry, academia, and research institutions and equipping these platforms with state-of-the-art instruments and testing methods. Furthermore, we continually optimise the management strategies and operational mechanisms of our R&D platforms to drive the ongoing advancement of green chemical technologies through innovation.

心連心集團持續加大對研發創新平臺的投入，建設先進的實驗室、中試基地等研發平臺，彙聚高水平科研人才，加強產學研協作，配備一流的儀器設備和檢測手段，不斷優化平臺管理和運行機制，持續推動綠色化學技術的研發、成果轉化和應用。

Performance indicators 衡量指標	Targets 目標	Achievement status 完成情況
Research on energy-saving and consumption-reduction technologies 節能降耗技術研究	Number of new technology applications: 6 新技術應用數量6個	Achieved: 6 完成6個
Technology planning research 技術規劃研究	Number of new chemical product studies: 3 化工新品研究數量3個	Achieved: 3 完成3個
Key action plans 關鍵行動方案	Number of company-level action plan: 1 公司級行動方案1項	Achieved: 1 完成1項
Number of patent applications 專利申請數量	139 139個	Achieved: 150 完成150個

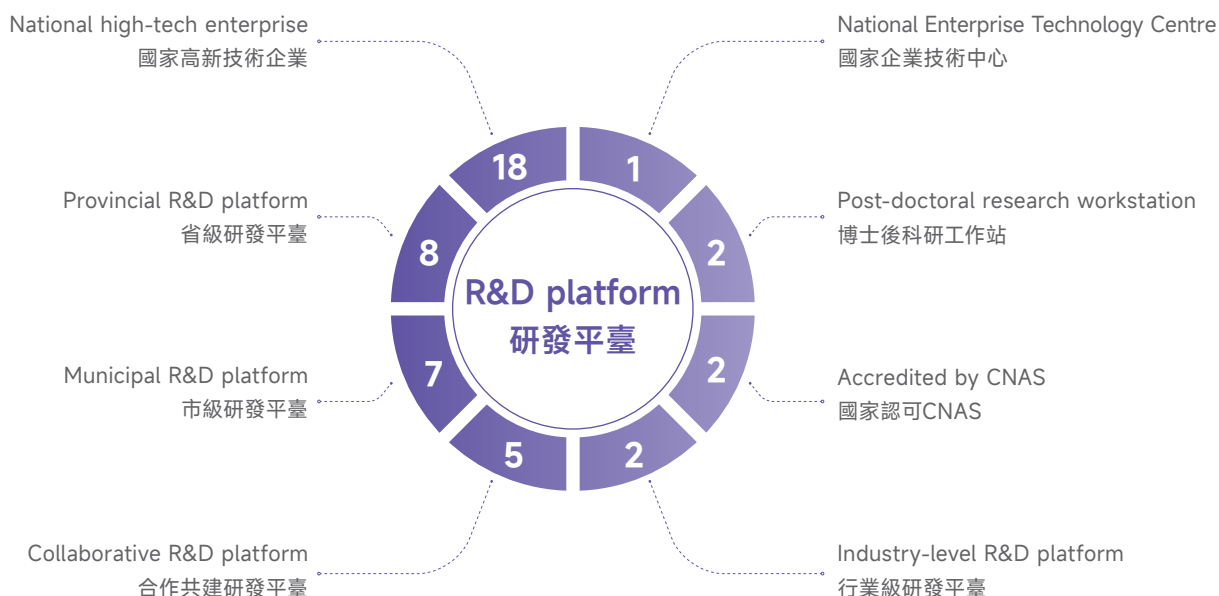
ESTABLISHMENT OF R&D INNOVATION PLATFORM

研發創新平臺建設

XLX Group possesses advanced national, provincial, municipal, and industry-level technology R&D and innovation platforms. We have established a three-level R&D system covering basic research, achievement transformation and implementation, and production system technology research. This system supports our in-depth R&D in fertilisers and related fields, continuously enhances product quality, and provides technical guarantees for energy conservation, emission reduction, and cost reduction.

心連心集團擁有先進的國家級、省市級、行業級技術研發與創新平臺，並構建基礎研究、成果轉化實施、生產系統技術攻關三級研發體系，支援本集團在化肥及相關領域進行深度技術研發，持續提升產品技術含量和質量，同時為節能減排和降低生產成本提供技術保障。

XLX Group's R&D Innovation Platforms 心連心集團研發創新平臺



Performance 績效

As of the end of 2024 截至 2024 年末



participated in **2** ongoing key R&D projects under the "14th Five-Year Plan"

正在參與的「十四五」規劃重點研發項目 **2** 項



had a total of **69** R&D projects in progress, reflecting an increase of **68.3%** compared to the same period last year

各類在研項目共 **69** 項，較上年同期增長 **68.3%**





Case 案例

Promotion of the construction of the pilot production base by XLX Group 心連心集團推進中試基地建設

On 21 March 2024, Xinxiang Science and Technology Bureau visited XLX Group to investigate the construction progress of our pilot base. During the visit, both parties engaged in in-depth discussions regarding the application preparation work, refining the research directions, and enriching the supporting conditions. These efforts have significantly advanced the establishment of the pilot production base.

新鄉市科技局於 2024 年 3 月 21 日赴本集團調研中試基地的建設情況，雙方就申報準備工作進行探討，凝練了研究方向，充實了支撐條件，有力地推動了中試基地的爭創工作。



Municipal Bureau of Science and Technology conducted a research visit to XLX Group
市科技局赴心連心進行調研

Once completed, this pilot production base will offer a comprehensive range of services, including pilot-scale maturation, experimental verification, inspection and testing, and technical consultation, to universities, scientific research institutions, and enterprises. It aims to establish a one-stop pilot service platform that enhances the quality and efficiency of pilot services. By doing so, we contribute to the development of the energy-saving and carbon-reducing modern chemical industry in Henan Province, showcasing commitment and capabilities.

該中試基地建成後將為高校、科研機構和企業提供包括中試熟化、試驗驗證、檢驗檢測、技術諮詢等在內的全方位服務，打造一站式中試服務平臺，提高中試服務的質量和水平，為推動河南省現代化工節能降碳產業的發展貢獻力量。



DIGITAL INTELLIGENCE-POWERED TECH INNOVATION INITIATIVES 數智化賦能科創活動

In recent years, we have introduced an intelligent technology change management system, a standardisation information system, and an archives digitalisation system, laying a solid foundation for the full life cycle management of R&D and innovation.

近年來，本集團分別引進了智能化技術變更管理系統、標準化信息系統、檔案信息化系統，夯實研發與創新的全生命週期管理基礎。

Digital Management System for Scientific and Technological Innovation 科技創新數字化管理系統

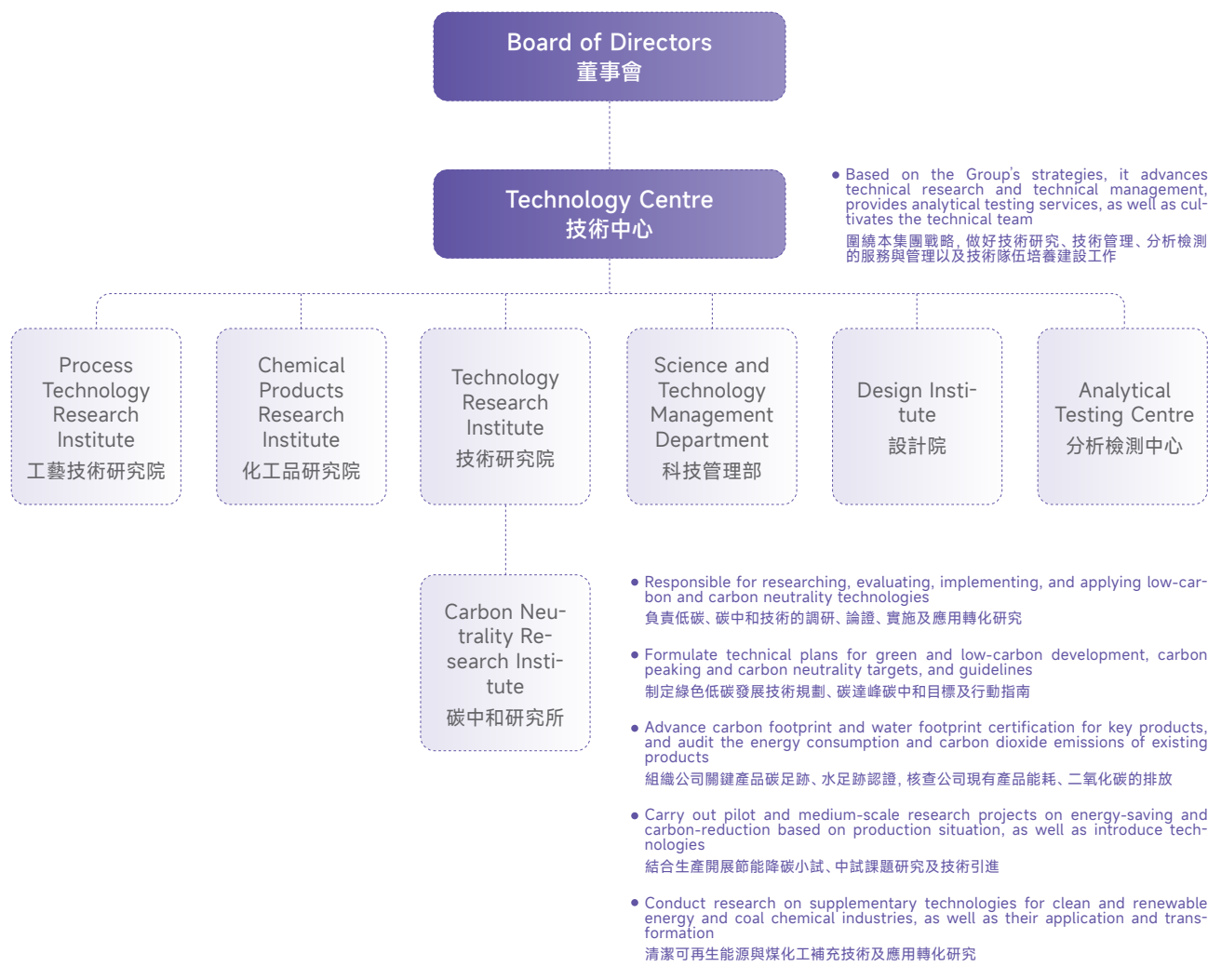


R&D INNOVATION MANAGEMENT STRUCTURE AND SYSTEMS 研發創新管理架構與制度

XLX Group has established a Technology Center led by the Group's directors and involving senior managers, bringing together R&D talents from various fields. The Technology Center is fully responsible for the management and implementation of the R&D system. Guided by business needs, the Group has established a three-tier R&D model, set up R&D teams with different research directions, and granted them sufficient authority to strengthen technical R&D and stimulate the vitality of the technical system. Furthermore, we actively promote the collaboration among R&D functional departments and R&D teams at each base, facilitating efficient information communication and improving the operational efficiency of technical activities.

心連心集團組建了由集團董事領導、高層管理者參與、彙聚各領域研發人才的技术中心，全面負責施行研發系統的管理與實踐工作。本集團以業務為導向，搭建三級研發模式，設立不同研究方向的研發工作團隊並充分授權，強化技術研發，激發技術系統活力。同時，我們積極推動各研發職能部門、各基地研發團隊強化協作，促進高效信息溝通，提升技術活動運作效率。

XLX Group's R&D Management Framework 心連心集團研發管理架構



The Group strictly adheres to laws and regulations such as the Company Confidentiality Management Procedure and the Regulations on National Science and Technology Awards. We have established and systematically implemented a series of regulations, including the Two-Tier R&D System Operating Mechanism, the Technical R&D Project Management Regulations, the Improvement & Innovation Activity Management Regulations, the Science & Technology Activity Incentive Management Measures, the Technical Change Control Regulations, and the Group External S&T Collaboration Management Procedures. We continuously work to standardise processes related to technology and project R&D within the Group. This includes evaluations of key links, laboratory standardisation, construction of small-scale pilot production bases, as well as talent introduction and incentive programmes. By doing so, we ensure that all aspects of our scientific research activities are conducted in a scientific manner that is systematic and compliant with relevant regulations.

本集團嚴格遵守《國家科學技術獎勵條例》《公司保密管理程序》等法律法規，制定《兩級技術研發體系工作機制》《技術研發項目管理制度》《改進創新活動管理制度》《科學技術活動激勵管理辦法》《技術變更管理規定》《集團對外科學技術合作管理辦法》等制度並有序執行。我們持續規範本集團技術與項目研發、關鍵環節評審、實驗室標準化、小中試基地建設、人才引進與激勵等流程，使科研活動全流程科學化、制度化、合規化開展。

TALENT DEVELOPMENT FOR R&D INNOVATION

研發創新人才培養

XLX Group leverages platforms such as postdoctoral research workstations and academician workstations to attract outstanding domestic and international scientific research talents. We collaborate with universities and research institutions to cultivate scientific and technological expertise, fostering an innovative culture while establishing a comprehensive innovation incentive mechanism. Through these efforts, we are committed to building a high-quality R&D team with strong innovation capabilities, which provides essential talent support for the Group's technological innovation.

心連心集團依託博士後科研工作站、院士工作站等平臺，吸引國內外優秀科研人才加入，與高校、科研機構合作培養科技人才，營建創新文化，搭建完善的創新激勵機制，打造一支高素質、創新能力強的研發團隊，為本集團的技術創新提供人才保障。

Strengthen the recruitment of excellent talents in areas such as chemical materials, fine and high-end chemicals, equipment, automation, engineering design, catalyst R&D, and material modification to expand the R&D talent pool.

加強化工材料、精細高端化學品、裝備、自動化、工程設計、催化劑研發、材料改性等方面的優秀人才引进，提升研發人才的厚度。

Technical talent acquisition 延攬技術人才

Technical talent cultivation 培養技術人才

Segment the technical system personnel into new employees, high-potential talents, and high-level talents, and provide differentiated training for each group. Establish a team of lecturers, learning maps, and online courses to achieve the goal of "Target Group with Core Competency Focus".

對技術系統人員進行新工、高潛人才、高階人才細分並差異化培養，建立講師隊伍、學習地圖、線上課程，實現「一類人群，聚焦一種能力」。

Provide growth opportunities for R&D personnel through R&D projects. Create a tolerant and positive R&D atmosphere to enhance the capabilities of R&D talents through practical experience.

借助研發課題提供研發人員成長平臺，建立容錯、積極的研發氛圍，在實踐中強化研發人才的力度。

Participation in R&D projects 參與研發課題

Cultivating an innovation-driven culture 培育創新文化

Establish in-house patent management system, build technical skills competition platforms, organise elite forums focused on specialised fields, develop analytical testing resource databases, share technical case studies and expert knowledge repositories, and incentivise employee participation in technological innovation.

制定廠內專利制度，搭建技術擂臺，開展聚焦專業領域高端論壇，建立分析檢測資源庫，技術案例與技術專家資源分享，鼓勵員工參與技術革新。

Learn advanced technologies, R&D management experience, and innovative thinking from industry leaders.

從優秀的企業學習先進技術、研發管理和創新思維。

Benchmarking against industry leaders 對標企業學習

Establishment of an incentive mechanism 建立激勵機制

Establish a sound R&D innovation incentive mechanism. Provide material rewards and spiritual commendations to R&D teams and individuals who have made remarkable contributions in technological innovation, product R&D, and other aspects.

建立完善的研發創新激勵機制，對在技術創新、產品研發等方面做出突出貢獻的研發團隊與人員給予物質獎勵和精神表彰。

Performance 績效



As of the end of 2024, the Group had **987** R&D personnel, including **2** professor-level senior engineers, **5** PhDs, **145** engineers and agronomists, and over **70** researchers at various levels

截至 2024 年末，本集團擁有研發人員 **987** 人，其中教授級高級工程師 **2** 人，博士 **5** 人，工程師 / 農藝師 **145** 人，各級研究員 **70** 余人



In 2024, the Group organised **48** special training sessions on scientific and technological innovation

2024 年，本集團共計組織科技創新專項培訓 **48** 場次



In 2024, the Group awarded a total of **RMB 1,492,200** (pre-tax) to reward internal group-level scientific and technological innovation achievements

2024 年，本集團對內部集團級科學技術創新成果總計獎勵 **149.22** 萬元（稅前）

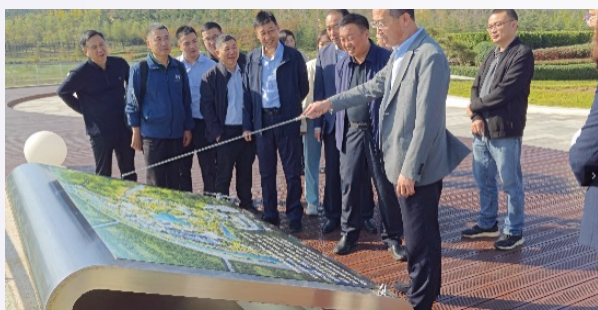


Case
案例

Benchmarking study at Wanhua Chemical by XLX Group 心連心集團赴萬華化學對標學習

On 12 October 2024, a 14-member delegation from XLX Group, comprising the General Manager, Deputy General Managers, Chief Engineer, and Consultant, visited Wanhua Chemical Group Co.,Ltd. Yantai Base for research and exchange. During the visit, both parties engaged in in-depth discussions and shared experiences on technology R&D, product R&D, and talent cultivation, promoting high-quality development in their respective industries.

本集團總經理、副總經理、總工程師、諮詢顧問等 14 人於 2024 年 10 月 12 日赴煙臺萬華調研交流。期間雙方圍繞技術研發、產品研發、人才培養等方面的先進經驗進行了深入交流與學習，助推雙方在行業中實現高質量展。



General Manager Zhang Qingjin and his delegation conducted a research visit and communication at Wanhua Chemical Group Co.,Ltd. Yantai Base 總經理張慶金等一行赴煙臺萬華調研交流

INNOVATIVE PRACTICES

創新實踐

XLX Group, aiming for high-end products, cutting-edge low-carbon technologies, industry leadership, solving industry bottlenecks, and high-quality development, keeps increasing R&D investment, boosting innovation, and accelerating achievement transformation. We actively integrate internal and external resources, focus on digital and intelligent transformation, and concentrate efforts on key technology research and new product development, contributing scientific research strength to promoting the technological progress and sustainable development of the fertiliser industry.

心連心集團以產品高端化、技術及解決方案前沿低碳化、引領行業發展、解決行業瓶頸問題、以高質量發展為方向，持續加大研發投入、強化創新能力、加速成果轉換。我們積極整合企業內外部資源，注重數字化與智能化轉型，集中力量進行關鍵技術攻關和新產品研發，為推動化肥行業的技術進步和可持續發展貢獻科研力量。

R&D AND INNOVATION IN PRODUCT AND EFFICACY 產品及其效能研發創新

The Group continuously develops new fertilisers, special-purpose fertilisers, and high-efficiency green fertiliser products through technological upgrades, formula innovations, and soil mapping, etc., to improve the performance and quality of fertiliser products. Furthermore, the Group prioritises research and technological advancements in areas such as biochemistry, pharmaceutical intermediates, high-purity and electronic-grade products, as well as new chemical materials. We are committed to continuous innovation in production processes, expanding our product range and application areas while enhancing product performance. This focus enables the fertiliser and chemical industry to embark on a new path towards sustainable development. Additionally, our efforts provide innovative solutions and technical support for the advancement of related industries.

本集團通過技術升級、配方創新、繪製土壤地圖等手段，持續開發新型肥料、專用肥、高效綠色肥料產品，提高化肥產品性能和質量。同時，本集團著重於生物化工、醫藥中間體、高純及電子級產品、化工新材料等領域的研究與技術儲備，持續創新生產工藝，拓展產品種類與應用領域，提高產品性能，助力化肥化工行業邁向可持續發展新征程，也為相關行業的發展提供了新的解決方案和技術支援。

New products 新產品	Characteristics 特性	Value creation 價值創造
Water-triggered membrane controlled-release fertiliser 水觸膜控失肥	Utilise natural materials that form a mesh structure when in contact with water to tightly encapsulate fertiliser nutrients, control nitrogen loss, and enable gradual release 利用天然材料遇水成網狀結構的特性，嚴密包裹化肥養分，控制氮元素流失速度，實現逐步釋放、緩慢釋放	Boost nitrogen fertiliser utilisation to over 60% 使氮肥利用率提高至60%以上 Reduce the rate of fertiliser application while increasing crop yields 減少施肥量的同時實現作物增產 Minimise resource waste and environmental pollution from over-fertilisation 減少因過量施肥導致的資源浪費和環境污染

New products 新產品	Characteristics 特性	Value creation 價值創造
New stabilised urea 新型穩定性尿素	<p>By adding relevant preparations, slow down the hydrolysis rate of urea, control the formation of NO₃, and enable one-time fertilisation for field crops without the need for topdressing</p> <p>通過加入相關製劑，減緩尿素的水解速度，控制NO₃的形成，並可實現大田作物一次性施肥，無需追肥</p>	<p>Technological breakthrough: Independently developed, breaking the foreign monopoly on urease inhibitor technology 技術突破：自主研發，打破國外對含脲酶抑制劑技術的壟斷</p> <p>Improved utilisation: Increase nitrogen utilisation to 42%-45% 提高利用率：氮元素利用率提高至42%-45%</p> <p>Extended fertiliser efficacy: reach 100-120 days 延長肥效期：肥效期長達100-120天</p> <p>Increased yield and reduced costs: Less fertilisation and fewer applications, maintaining crop yields 增產降本：減少施肥量和施肥次數，保證作物產量</p> <p>Outstanding environmental performance: Significantly inhibit ammonia volatilisation, reducing air pollution and mitigating water eutrophication from nitrogen loss, supporting agricultural sustainability 環保性能突出：抑制氨揮發效果顯著，降低對大氣的污染以及因氮元素流失對水體造成的富營養化等環境問題，有利於農業的可持續發展</p>



Case
案例

Research on modified polyoxymethylene products to meet customer demands
為滿足客戶需求開展改性聚甲醛產品研究

To meet end customers' demands for higher product performance, urgent needs for composite performance, and better cost-effectiveness, the Group established a Polyoxymethylene (POM) Research Group in the 2022 Laboratory. This group continuously conducts special research and development on a series of modified POM products with properties such as toughening, strengthening, and wear resistance. Through cyclic scientific research, including providing customers with trial products, researching trial situations, and continuously improving and optimising product performance, the Group had a “groundbreaking” achievement in modified product development. This effort helps expand the application scenarios of POM materials with low formaldehyde emission performance.

為迎合終端客戶對產品性能要求更高、複合性能需求迫切、性價比更優等需求，本集團組建 2022 實驗室聚甲醛課題組持續開展增韌、增強、耐磨等改性聚甲醛系列產品的專項研究與開發。通過為客戶提供試用產品、調研試用情況、精進開發與改良產品效能的循環科研工作，實現本集團改性產品「零」突破，助力拓寬具有低甲醛釋放性能的聚甲醛材料的應用場景。

TECHNOLOGICAL INNOVATION IN COMPREHENSIVE RESOURCE UTILISATION
資源綜合利用技術創新

The Group continuously refines and optimises technologies such as the comprehensive recovery and utilisation of low-level heat in the system, syngas purification and separation, and tail gas recycling. These efforts transform waste materials into valuable resources and contribute to resource recycling and environmental protection.

本集團持續精進和優化系統低位元熱綜合回收利用、合成氣淨化與分離、尾氣回收利用等技術，將廢棄物料轉化為珍貴資源，助力資源循環流轉與環境呵護。

- Using waste gases and by-products from production processes as primary materials, tail gas is efficiently recovered and utilised through pressurisation, cooling, separation, and purification processes, producing various high-value-added industrial-grade, food-grade, and electronic-grade gas products

以生產過程中的廢氣及副產品為主要原料，通過提壓、降溫、分離、提純等工序，實現尾氣的高效回收利用，生產出多種高附加值的工業級、食品級、電子級氣體產品

- The coverage of “Double-Tower Distillation” equipment is reduced by about 50% and 30% of the investment costs is saved

「雙塔精餾」工藝整體裝置佔地面積縮減50%左右，投資額節約30%

- The product's unit energy consumption is reduced to below 135 kWh/t, ranking among the leading levels in China

產品單耗降低至135kWh/t以下，國內領先



Tail gas recycling
尾氣回收利用

- Through advanced production processes, corn cobs are converted into basic organic chemical products such as furfural, which are further processed into low-carbon and clean electricity, heat energy, and high-value-added products such as pharmaceuticals and fragrances

通過領先的生產工藝，將玉米芯轉化為糠醛等基礎有機化工產品，並進一步衍生出低碳清潔的電能、熱能以及醫藥、香料等高附加值產品

- This approach addresses the issue of agricultural waste disposal

解決了農業廢棄物的處理問題

- It maximises resource utilisation and provides new ideas and ways for extending and upgrading the agricultural industry chain

實現了資源的最大化利用，為農業產業鏈的延伸和升級提供了新的思路和途徑



Biomass energy recycling
生物質能源循環利用

SOLUTION INNOVATION

解決方案創新

The Group innovates in fertilisation technology and service models. Examples include seed-fertiliser synchronous sowing, integrated water-fertiliser management, agrochemical service centres, and agricultural big data platforms. These help reduce non-point source pollution in agriculture²⁴, protect the environment, and achieve coordinated development of farming and environmental protection, strongly supporting food security and agricultural sustainability.

本集團持續創新施肥技術和服務模式，如種肥同播技術、水肥一體化技術、農化服務中心及農業大數據平臺的建設等，有助於減少農業面源²⁴污染，保護土壤、水體和大氣環境，實現農業生產與生態環境保護的協調發展，為保障糧食安全和農業可持續發展提供了有力支援。

²⁴ Agricultural non-point source pollution refers to the pollution formed when nutrients such as nitrogen and phosphorus, organic or inorganic pollutants such as pesticides, veterinary drugs, and growth regulators, as well as sediments such as farmland soil particles enter water bodies through surface runoff of farmland, farmland drainage, and subsurface seepage during agricultural production activities.

²⁴ 農業面源污染是指在農業生產活動中，氮素、磷素等營養物質，農藥、獸藥、生長調節劑等有機或無機污染物，以及農田土壤顆粒等沉積物，通過農田地表徑流、農田排水和地下滲漏，進入水體而形成的污染。

MANUFACTURING INNOVATION AND DEVELOPMENT
製造創新與開發

XLX Group employs lean production and intelligent manufacturing practices to ensure safety, enhance efficiency, upgrade product performance, optimise resource utilisation, and reduce unit energy consumption. This approach enables us to achieve a dual win for both economic growth and environmental protection. In 2024, the three bases invested RMB 30.39 million to advance Industry 4.0 initiatives. This investment focuses on managing operations in line with lighthouse factory standards, automating and intelligently producing products, as well as acquiring and maintaining unmanned forklift trucks.

本集團通過精益生產與智能製造等措施，保障生產安全、提升生產效率、升級產品效能、優化資源使用、降低單位能耗，實現經濟增長與環境保護雙贏。2024 年，三大基地推進工業 4.0、參照燈塔工廠進行管理、產品自動化智能化生產、無人叉車購買和運維的資金投入達 3,039 萬元

Partial Showcase of XLX Group’s Advanced Manufacturing Technology Innovations and Achievements
心連心集團部分先進製造技術創新與成果展示

New technologies/new processes 新技術 / 新工藝	Efficiency enhancement outcomes 賦能效果	Value creation 價值創造
Coal gasification technology upgrade 煤氣化技術升級	Optimised resource utilisation 優化資源使用 Reduced pollutant emissions 降低污染物排放	Increase the coal conversion efficiency from 84% to over 99% 使煤炭轉化效率由84%提升至99%以上 Reduce the total pollutant emissions by more than 60% 污染物排放總量下降60%以上
Coal-water slurry gasification energy-saving technology 水煤漿氣化節能技術	Reduced energy consumption 降低能耗	Save 0.175 tonnes of standard coal compared to the industry's benchmark level of comprehensive energy consumption per tonne of ammonia, with a reduction ratio of 13% 較行業噸氨綜合能耗標杆水平節能0.175噸標煤，節降比例達到13%
Ultra-low energy consumption urea process technology 超低能耗尿素工藝技術	Reduced energy consumption 降低能耗	Realise steam usage ≤620 kg/tonne of urea 工藝蒸汽消耗≤620Kg/噸尿素 Realise power consumption ≤ 26 kWh/tonne of urea 電耗≤26kWh/噸尿素 Realise circulating water ≤ 65 t/tonne of urea 循環水≤65t/噸尿素
Full waste heat utilisation in the shift system 變換系統全餘熱利用	Resource recycling 資源循環利用	ecover approximately 1,300 kW of heat 回收熱量約1,300kW
Intelligent online detection of motor operation 電機運行智能線上檢測	Improved production efficiency 提高生產效率	Reduce the risk of safety accidents. 降低安全事故風險 Save labour costs 節約人力成本

INTELLECTUAL PROPERTY PROTECTION

知識產權保護

XLX Group has established and continuously enhanced its intellectual property protection management system. We prioritise the creation, exploration, layout, protection, application, and risk prevention of intellectual property rights. Our proactive approach includes applying for patents, trademarks, trade secrets, and other forms of intellectual property protection, with a strong focus on safeguarding core technologies and innovation outcomes.

心連心集團建立並持續完善知識產權保護管理體系，重視知識產權的創造、挖掘、佈局、保護、運用和風險防範，積極申請專利、商標、商業秘密等知識產權，加強核心技術和創新成果保護。

ORGANISATIONAL ARCHITECTURE AND INSTITUTIONAL FRAMEWORK

組織架構與制度建設

We have set up an intellectual property management department with professional managers and technicians. They are responsible for the overall planning, management, and protection of the Group's intellectual property rights and coordinate related affairs among internal departments.

我們設立知識產權管理部門，配備專業管理人員和技術人員，負責本集團知識產權的整體規劃、管理與保護，協調內部各部門之間的知識產權事務。

We strictly abide by relevant laws and regulations, including the Patent Law of the PRC, the Trademark Law of the PRC. We have established a series of intellectual property management systems, such as the Intellectual Property Management Regulations, the Patent Administration Operational Procedures, the XLX Group Trademark Management Provisions, and the Technical Confidentiality Management Measures. These systems specify the processes and requirements for all aspects of intellectual property rights, such as layout, application, examination, authorization, maintenance, and dispute resolution, ensuring that the Group's intellectual property management operates in an orderly manner.

我們嚴格遵循《中華人民共和國專利法》《中華人民共和國商標法》等相關法律法規，制定《知識產權管理辦法》《專利管理事務操作規程》《心連心集團商標管理規定》《技術保密管理辦法》等一系列知識產權管理制度，明確知識產權的佈局、申請、審查、授權、維護、糾紛處理等各個環節的流程和要求，確保本集團的知識產權管理工作有章可循。

INTELLECTUAL PROPERTY RISK PREVENTION AND RESPONSE

知識產權風險防範與應對

Intellectual property risk management is integral to the Group's entire operational process, spanning multiple stages, departments, and personnel across R&D, production, procurement, sales, etc. The Group continuously enhances its comprehensive intellectual property risk management system, conducting regular evaluations and analyses of internal intellectual property status to identify potential risks. Additionally, we closely monitor industry trends and competitors' intellectual property strategies, while strengthening cooperation with relevant law enforcement and judicial authorities. This ensures the legality and compliance of all our intellectual property activities, effectively mitigating the Group's intellectual property risks.

知識產權風險管理貫穿本集團經營全過程，涉及研發、生產、採購、銷售等多環節、多部門、多人員。本集團持續建立健全知識產權風險全流程管理體系，定期對內部知識產權狀況進行評估和分析，識別潛在的知識產權風險。同時，我們密切關注行業動態和同行的知識產權佈局，加強與知識產權執法部門、司法機關的溝通與合作，確保各項知識產權活動的合法合規，以有效預防和降低本集團知識產權風險。

Intellectual Property Risk Management Measures 知識產權風險管理舉措



INTELLECTUAL PROPERTY PROTECTION MANAGEMENT 知識產權維權保護管理

The Group has established comprehensive internal management and preventive measures, as well as external infringement response strategies. Upon discovering any infringement of our intellectual property rights, we are equipped to swiftly employ effective legal actions to safeguard our rights. We encourage the prompt documentation and reporting of any identified infringements to the Group's designated public email for intellectual property infringement reports (zscqjj@hnxlx.com.cn), with support for the investigation and evidence-gathering process.

In 2024, there were no instances of the Group being penalised by relevant authorities or found liable by court judgment for infringing on others' intellectual property rights. Additionally, no major intellectual property infringement lawsuits, including those related to abuse of dominant position, counterfeiting, and piracy, occurred.

本集團制定了完善的內部管理與預防舉措及外部侵權應對措施，一旦發現我們的知識產權受到侵犯，能夠迅速採取有效的法律手段進行維權。我們鼓勵及時將發現的侵權情況留證、上報至本集團知識產權侵權檢舉公共郵箱(zscqjj@hnxlx.com.cn)，並協助調查取證。

2024 年，本集團未發生因侵犯他人知識產權受到相關主管部門處罰或法院判決承擔責任的事件，未發生重大知識產權侵權訴訟事件（包括濫用支配地位、假冒和盜版）。

INTELLECTUAL PROPERTY TRAINING AND CULTURAL DEVELOPMENT 知識產權培訓與文化建設

The Group regularly organises intellectual property training and educational activities, inviting experts, scholars, lawyers, and other professionals to provide employees with insights into intellectual property laws and regulations, application procedures, protection strategies, and related topics. This initiative aims to enhance employees' awareness of intellectual property rights and improve their management capabilities. In 2024, the Group carried out two intellectual property-related publicity and training activities, with over 180 participants and a total training duration of two hours.

本集團定期組織開展知識產權培訓教育活動，邀請專家學者、律師等專業人士為員工講解知識產權法律法規、申請流程、保護策略等方面的知識，提高員工的知識產權意識和管理水平。2024 年，本集團開展 2 場知識產權相關宣傳、培訓與文化建設活動，180 餘人參與，培訓總時長 2 小時。

INTELLECTUAL PROPERTY PERFORMANCE APPRAISAL 知識產權績效考核

The Group clarifies intellectual property reward and penalty requirements, breaks down IP management goals, and conducts appraisals. Rewards and penalties for patents are imposed in line with the principles of openness, fairness, and impartiality. The Group will, in accordance with applicable national and internal regulations, offer both material and non-material rewards to departments or individuals who have made significant contributions to the formation, protection, and management of intellectual property rights, as well as the conversion of scientific and technological achievements. This includes issuing bonuses, promoting positions, upgrading ranks, and evaluating professional titles for those who have effectively prevented infringements and safeguarded the Group's legitimate intellectual property rights. In the event that the Group's intellectual property rights or those of our customers are harmed, or if economic losses occur due to violations of relevant rules and regulations, we will seek compensation based on the actual losses incurred and hold the responsible parties accountable. In 2024, the Group's total expenditure on intellectual property performance incentives and bonuses reached RMB 240,000.

本集團明確知識產權獎懲要求，將知識產權管理目標進行分解並開展考核，遵循公開、公平、公正的原則進行專利獎勵和違規處罰。本集團對於在知識產權形成、保護、管理及科技成果轉化工作中有突出貢獻的，或有效制止侵權、維護本集團知識產權合法權益成績顯著的部門或人員，將依據國家和本集團的具體規定，給予包括發放獎酬金、提職、提級、職稱評定等物質和精神方面的獎勵。因違反相關規章制度，給本集團知識產權或客戶知識產權造成損害或經濟損失的，我們按實際損失進行索賠並追究相關責任。2024 年，本集團知識產權績效獎勵與獎金支出總計 24 萬元。

INTELLECTUAL PROPERTY HONOURS AND PERFORMANCE
知識產權榮譽與績效

The Group places high value on the exploration, application, and maintenance of intellectual property. Notably, Xinjiang XLX secured the “First Prize of the Autonomous Region Science and Technology Progress Award (2023)” for its participation in the “Key Technologies and Equipment Innovation for High-Efficiency Sustainable Alfalfa Production in Arid Regions” project. Meanwhile, Henan XLX was recognised with intellectual property-related honours including “National Intellectual Property Demonstration Enterprise”, “Petrochemical Industry Intellectual Property Demonstration Enterprise”, and “Henan Provincial High-Value Patent Cultivation Center”.

本集團十分注重知識產權的挖掘、申請與維護，新疆心連心參與的「乾旱區苜蓿高效持續生產關鍵技術及裝備創新與應用」項目成功斬獲自治區 2023 年度「科技進步獎一等獎」；河南心連心曾獲得「國家知識產權示範企業」「石油和化工行業知識產權示範企業」「河南省高價值專利培育中心」等知識產權相關榮譽。



The Group’s Intellectual Property Licensing (Patents)
本集團獲取的知識產權情況，單位（項）

Category 類別	Total licensed patents 累計獲取數量	Number of valid patents in 2024 2024 年內有效數	Number of licenses in 2024 2024 年獲取數量	Number of applications in 2024 2024 年申請數量
Patents for invention 發明專利	106	106	20	22
Utility model patents 實用新型專利	452	377	53	83
Design patents 外觀設計專利	5	5	0	1
Patent subtotal 專利小計	563	488	73	106
Copyrights of works 作品著作權	7	7	1	1

INDUSTRY-UNIVERSITY-RESEARCH COOPERATION

產學研合作

XLX Group strengthens long-term industry-university-research cooperation, establishing effective communication and collaboration mechanisms. This enables resource sharing, complementarity of strengths, and joint scientific research and technological innovation, accelerating the transformation and application of scientific and technological achievements.

The Group engages in joint innovation focused on the research and development of environmentally friendly new fertilisers. Our key initiatives include the development of a range of crop-specific fertilisers and package fertilisers, as well as researching fertilisation technologies for major crops. Our strong cooperation between industry, universities, and research institutions has significantly enhanced our independent innovation capabilities and industry influence. This collaboration provides practical bases and application scenarios for scientific research in universities and research institutions, promoting the upgrading of China's fertiliser industry and improving its overall competitiveness. In 2024, the Group had 27 ongoing projects with universities and research institutions, and visited these institutions 6 times to learn advanced technologies and experiences.

心連心集團持續加強與高校、科研機構的長期產學研合作，建立良好的溝通與合作機制，實現資源分享、優勢互補，共同開展科研項目攻關和技術創新，加速科研成果的轉化和應用。

本集團圍繞環境友好新型化肥研發進行聯合創新，重點研發系列作物專用肥、套餐肥，研究主要作物的配肥技術。良好的產學研協作提升了我們的自主創新能力和行業影響力，為高校和科研機構的科研工作提供了實踐基地和應用場景，促進了中國化肥產業升級，提高我國化肥行業的整體競爭力。2024年，本集團與各高校、科研院所合作中的項目為27個；走進科研院所，學習先進技術和經驗共計6次。



Cooperation with Shanghai Jiaotong University on the Preparation and Development of Fertiliser Synergists
與上海交大合作開展肥料增效劑製備開發研究

Key R&D Projects under the “14th Five-Year Plan” Jointly Conducted by XLX Group and Universities/Scientific Research Institutions

心連心集團聯合各高校與科研院所正在開展的「十四五」規劃重點研發項目

Project 課題	Main content 主要內容	Targets 目標
Productivity enhancement and “Second Granary” construction for light saline-alkali barren farmland in North China Plain 華北平原輕鹽鹼瘠薄耕地產能提升與第二糧倉建設	<p>As the host organisation, the Group, in cooperation with the Chinese Academy of Sciences, Hebei University of Science and Technology, etc., conducts collaborative research and development of products for improving light saline-alkali barren farmland around the main objectives of the project.</p> <p>本集團作為主持單位，聯合中科院、河北科技大學等，圍繞課題主要目標協作研發輕鹽鹼瘠薄土壤改良產品。</p>	<p>Aim to improve soil fertility by 0.5 grades, increase crop yields by 15%-20%, and increase the fertiliser utilisation by more than 10%.</p> <p>擬實現地力提升0.5個等級、增產15%-20%、化肥利用率提了10%以上的目標。</p>

Project 課題	Main content 主要內容	Targets 目標
<p>Targeted cultivation techniques and application models for multi-factor constrained cropland productivity enhancement in the Huang-Huai-Hai Plain</p> <p>黃淮海多因數障礙糧田產能提升定向培育技術模式與應用</p>	<p>Led by the Group, with the participation of six organisations including the Chinese Academy of Sciences and the Hebei Academy of Agriculture and Forestry, this project conducts research and promotion on key technologies, products, and applications for synergistic enhancement of water and fertiliser efficiency in medium and low-yield fields, aiming at problems such as water scarcity and unreasonable fertiliser application in medium and low-yield wheat and corn planting areas in the Huang-Huai-Hai region.</p> <p>由本集團主持，中國科學院、河北省農林科學院等六家單位共同參與，針對黃淮海區域中低產小麥玉米種植區水資源匱乏、肥料施用不合理等問題，開展中低產田水肥協同增效關鍵技術、產品及應用的研究和推廣。</p>	<p>Aim to increase the yields of medium and low-yield fields in the Huang-Huai-Hai Basin by 20%, improve soil fertility by one grade, and increase the irrigation water utilisation efficiency by 65%.</p> <p>擬實現黃淮海流域中低產田產量提升20%、地力提升一個等級、灌溉水利用效率提升65%。</p>

Quality and Safety

質量與安全

XLX Group is firmly committed to instilling quality and brand awareness across all levels of the organisation. We continuously establish and refine a robust product quality and safety management system, ensuring comprehensive control over product quality and safety throughout the entire process. Additionally, we focus on enhancing our employees' quality capabilities through targeted training and digital transformation initiatives, fostering a culture of lean quality that safeguards customers' access to high-quality products and services.

The Group adheres to a “quality first” policy, setting high standards with a zero-defect target for product quality and safety. We ensure that our products consistently meet or exceed national standards as well as the specific quality objectives established by the Group, thereby effectively addressing customer needs.

心連心集團牢固樹立全員質量與品牌意識，建立健全並持續更新產品質量與安全管理體系，對產品質量與安全進行全流程管控，加強員工的質量能力培養與數字化建設，營建精益質量文化，為客戶使用高質量產品和服務護航。

本集團堅持「質量第一」的方針，設立零缺陷高標準的產品質量與安全目標，確保產品質量符合或優於國家標準和企業設定的質量目標以更好地迎合客戶需求。

Annual Quality Targets and Achievement of Products (Partial)
產品年度質量目標及完成情況 (部分)

Indicator 指標	Target value 目標值	Achievement 完成情況
Fertiliser product 化肥產品		
Defective product rate per tonne of fertiliser 噸肥質量事故佔比	0.8‰	Achieved 已達成
Online exposure incidents of product quality issues 產品質量事故網上曝光次數	0	Achieved 已達成
Batch non-compliance incidents 批量質量事故次數	0	Achieved 已達成
Product qualification ratio 合格品率	99.8%	Achieved 已達成
Rework rate 返工率	0.8%	Achieved 已達成
Scrap rate 報廢率	4.1%	Achieved 已達成
Trial-and-error completion rate for new product R&D 新產品研發試錯完成率	100%	Achieved 已達成
Chemical products 化工產品		
Premium grade rate of melamine 三聚氰胺優等率	100%	Achieved 已達成
Premium grade rate of products such as dimethyl ether, methanol, hydrogen peroxide, liquid ammonia, and organic amine series 二甲醚、甲醇、雙氧水、液氨、有機胺系列等產品優等率	100%	Achieved 已達成
Product qualification ratio of copolyformaldehyde 多聚甲醛合格率	100%	Achieved 已達成
Purity of gas products such as carbon monoxide, carbon dioxide, methane, and hydrogen 一氧化碳、二氧化碳、甲烷、氫氣等氣體產品純度	99.999%	Achieved 已達成
Medical intermediate products 醫藥中間體產品		
Main product purity 主要產品純度	≥99%	Achieved 已達成
Total impurities 產品總雜質含量	≤0.5%	Achieved 已達成

QUALITY AND SAFETY MANAGEMENT SYSTEM

質量與安全管理體系

XLX Group strictly adheres to relevant laws and regulations, including the Product Quality Law of the PRC, the Regulations on the Administration of Fertiliser Registration, and the Provisions on the Supervision and Administration of Quality Safety Responsibilities for Industrial Product Manufacturers. We also comply with national and industry standards for various fertiliser products, such as Compound Fertilisers (GB/T 15063-2020) and Fertiliser Marking—Presentation and Declaration (GB 18382-2021). The Group has developed and implemented a comprehensive set of regulations and procedures, including the Handling Procedure for Loading Quality Issues in the Storage & Transportation Department, the Reward and Penalty Regulations for Defective Fertiliser Sorting Prior to Outbound Shipment, the Identification and Traceability Management Procedures, the Quality Inspection Management Regulations for Bulk Products, and the Nonconforming Product Control Procedures. We have established a robust Quality Management System (QMS) with direct accountability from our General Manager. This system encompasses all aspects of product quality management—from design through research and development to production—and extends into post-launch quality assurance. Our proactive approach ensures that our products meet stringent safety standards while delivering exceptional quality and efficacy.

心連心集團嚴格遵守《中華人民共和國產品質量法》《肥料登記管理辦法》《工業產品生產單位落實質量安全主體責任監督管理規定》等法律法規，並遵循 GB/T 15063-2020《複合肥料》、GB 18382-2021《肥料標識內容和要求》等各類化肥產品的國家標準和行業標準。本集團制定並落實《儲運處裝車質量問題處理流程》《肥料成品出庫前挑揀問題肥獎懲管理細則》《標識與可追溯性管理程序》《大宗產品質量檢驗管理辦法》《不合格品控制程序》等制度規程，建立健全「總經理質量直接負責制」的質量管理體系，從產品設計、研發、生產到上市後的質量與安全保障開展產品全流程質量管理，確保產品的安全、質量與效能。

XLX Group Quality Management Framework
心連心集團質量管理架構



XLX Group has established internal control standards for products that exceed both national and industry benchmarks. For our export products, we align with international regulations and standards, including the REACH Regulation, the Food Chemicals Codex (FCC), and the United States Pharmacopeia (USP), ensuring that product quality and safety are effectively controlled throughout their entire life cycle. All major subsidiaries of the Group have successfully achieved ISO 9001 quality management system certification. Additionally, Henan XLX has received both national and provincial laboratory accreditation.

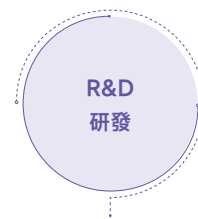
本集團制定了高於國家標準、行業標準的產品內控標準，出口產品對標 REACH 法規、FCC 食品化學法典、美國藥典 USP 標準等國際法規與標準，確保產品全生命週期質量安全可控。旗下主要子公司均已通過 ISO 9001 質量管理體系認證，河南心連心通過國家及省級實驗室認可認證。



FULL LIFECYCLE PRODUCT QUALITY AND SAFETY MANAGEMENT 全生命週期產品質量與安全管理

XLX Group utilises a standard Bill of Materials (BOM) as the foundation for establishing a unified quality standard across multiple production bases. We are equipped with advanced testing equipment and have developed a rigorous product quality inspection and control system. Our ongoing commitment to research aimed at enhancing product quality allows us to improve the safety and performance of our products throughout their entire life cycle. We strive to provide customers with high-efficiency and safe products that adhere to the highest standards and stringent requirements. In 2024, the Group achieved a 100% completion rate for product quality inspections and testing, as well as a 100% pass rate for product quality sampling inspections.

本集團以 BOM 標準為抓手建立多基地統一的質量標準，配備先進的實驗設備，制定嚴格的產品質量檢測和管控體系。我們持續開展產品質量提升研究，提高產品全生命週期的質量與安全表現，為客戶提供符合高標準、嚴要求的高效安全產品。2024 年，本集團產品質量檢驗檢測完成率與產品質量檢測抽檢合格率均為 100%。



- Establish a scientific and rigorous research and development process, and formulate detailed operation specifications and quality standards.
建立科學、嚴謹的研發流程，制定詳細的操作規範和質量標準。
- Conduct comprehensive and strict quality testing on research and development samples.
對研發樣品進行全面、嚴格的質量檢測。

Procurement 採購

- Source high-quality raw materials via strict supplier screening, management procedures, and long-term partnerships with top suppliers.
通過建立嚴格的供應商篩選與管理規程、與優質供應商建立長期穩定的合作關係等舉措，採購高質量原料。
- Conduct precise, multi-dimensional, and all-round testing on incoming materials to ensure they meet production requirements, controlling product quality at its source.
對各類來料進行精確、多維度、全方位的檢測，確保來料的各項指標符合生產要求，從源頭上把控產品質量。

Process 過程

- Introduce or develop advanced production equipment with high precision, efficiency, and stability. This ensures precise control of parameters like temperature, pressure, and flow rate, guaranteeing product quality stability and consistency.
引進或自研一系列具有高精度、高效率、高穩定性等特點的先進生產設備，能夠精確控制生產過程中的溫度、壓力、流量等各項參數，保證產品質量的穩定性和一致性。
- Actively apply new technologies to optimise production processes and enhance product quality.
積極應用新技術優化生產工藝，提高產品質量。
- Set up multiple quality monitoring points on the production line for real-time monitoring and recording of key parameters, enabling prompt identification of sub-par products.
在生產線上設置多個質量監測點，對生產過程中的關鍵參數進行即時監控和記錄，及時發現不合格產品。
- Equip with advanced testing equipment and professional personnel to conduct full-process, multi-dimensional quality testing on intermediate products from each process, allowing for timely tracking of product quality changes.
配備先進的檢測設備和專業的檢測人員，對各工序產生的中間產品進行全流程、多維度的質量檢測，及時掌握產品質量的變化情況。
- Form a production system product quality and safety management team and develop a quality risk identification table for the production phase.
成立生產系統產品質量安全管理小組，繪製生產階段質量風險識別表。
- Introduce the lean quality management project to establish a quality management framework.
引進精益質量管理項目，建立質量管理框架。

Implement continuous lean quality management. 持續的精益質量管理

Stable Operation is Based on Stable Processes 過程定標準



Ensure Stability in Both Production and Inspection Processes
同時推進生產過程與檢驗過程的雙穩定

Warehousing inbound process 入庫

- Conduct comprehensive analyses on key and special indicators of finished products, such as nutrients, moisture, impurities, and density, using professional testing teams and advanced testing facilities, following national, international, and industry standards. Store for sale only products that meet both external and internal standards, strictly prohibiting unqualified products from entering the market.

擁有專業的檢測團隊和先進的檢測設備，嚴格按照國家、國際、行業相關標準規定的檢測方法對成品養分、水分、雜質、密度等常規及特殊指標進行全面檢測，各項指標均符合外部標準和企業內部標準的產品才能入庫待售，嚴禁不合格品流入市場。

- Maintain clear product labelling and detailed inventory records to ensure effective management and traceability.

設置清晰明確的產品標識，建立詳細的庫存記錄，以便於管理和追溯。

- Adhere to the “first-in, first-out” principle to minimise quality changes from prolonged storage.

遵循先進先出原則，減少因長時間存放導致的質量變化。

- Conduct regular inventory checks to promptly identify and handle any sub-par products.

定期對庫存進行盤點，及時發現並處理庫存中的質量問題產品。

Build modern warehouses with products classified and stored based on their types and properties. Ventilation, moisture-proofing, pest control, and fire prevention facilities are established, and regular inspections and maintenance are conducted

建設現代化倉庫，根據產品種類、特性等進行分類存放，配備通風、防潮、防蟲、防火等設施，定期對倉庫進行檢查和維護

Fertilisers and solid chemical products 化肥及固體形態的化工產品

Warehouse operations 倉儲

Warehouse operations 倉儲

Liquid and gaseous chemical products 液體和氣體形態的化工產品

Provide dedicated storage facilities with products categorised and stored according to their properties. Storage methods, procedures, quantities, labelling, and records must strictly comply with national standards

配備專用存儲場所，按產品性質分類存放，儲存方式、方法、儲存數量、標識與記錄嚴格符合國家標準

Safety facilities and equipment, such as monitoring systems, temperature control, explosion-proofing, anti-toxicity, anti-corrosion, leak prevention, and protective barriers, are installed based on the types and properties of chemical products

根據化工產品的種類、特性設置相應的監測、調溫、防爆、防毒、防腐、防滲漏、防護圍堤等安全設施、設備

The facilities are managed by technically qualified personnel, who are equipped with reliable personal protective equipment

由具備專業知識的技術人員管理，管理人員配備可靠的個人安全防護用品

- Establish an intelligent logistics platform that incorporates GPS and IoT technology to monitor transportation locations and conditions in real-time, ensuring process controllability.
建立智慧物流平臺，利用先進的GPS定位系統、物聯網技術等物流信息技術，及時掌握產品的運輸位置、運輸狀態等信息，確保運輸過程的可控性。
- Develop a transport emergency response plan to address potential delays, accidents, or natural disasters, mitigating impacts on product quality and personnel safety.
建立運輸應急預案，針對可能出現的運輸延誤、交通事故、自然災害等突發事件，制定相應的應對措施，減少因突發事件對產品質量、人員安全造成的影響。



XLX smart logistics platform – outbound monitoring
心連心智慧物流平臺出廠監控

Transport 運輸

Transport vehicles in good condition and with good sealing properties are selected to prevent fertilisers from being exposed to rain, sunlight, or wind during transportation, thereby avoiding quality and safety issues

選用車況良好、密封性強的運輸工具，防止化肥在運輸過程中受到雨淋、日曬、風吹等自然因素的影響進而引發質量與安全問題

Consign qualified carriers and drivers and ensure that transport vehicles must undergo rigorous inspections and tests to guarantee their safety and suitability

委託有資質的承運商和駕駛員，承運車輛必須經過嚴格的檢查和檢驗，確保車輛的安全性和適用性

Fertilisers and solid chemical products
化肥及固體形態的化工產品

Transport
運輸

Liquid and gaseous chemical products
液體和氣體形態的化工產品

Products are packaged in a scientific and appropriate way using high-quality, moisture-proof, wear-resistant, and corrosion-resistant materials to prevent leakage, contamination, or quality damage during transportation due to packaging failure

對產品進行科學合理的包裝，選擇質量合格、防潮、耐磨、耐腐蝕的包裝材料，防止在運輸過程中因包裝破損而導致產品洩漏、污染或質量受損

Strictly inspect for gas or liquid leaks, and prevent impurities or dust from entering pipelines and tanks

嚴格檢查漏氣、漏液，雜質及灰塵進入管道和罐體

After-sales
service
售後

- Establish a compliant after-sales product quality management system to ensure thorough monitoring and management of after-sales product quality.
建設合規產品售後質量管理體系確保售後產品質量監測與管理到位。
- The Group undertakes routine audit inspections of all products on an annual basis and collaborates with regulatory bodies, customers, and others for both special and routine supervision and inspections.
本集團每年對所有產品開展常規審計檢查工作，並配合監管部門、客戶等專項和日常監督檢查。
- In 2024, no severe product quality defects were identified. The risk associated with managing the quality of the Group's sold products was effectively controlled.
2024年，我們未發現產品質量存在嚴重缺陷，本集團已售產品質量管理風險可控。
- Develop product recall plans, and conduct mock recall and disposal drills.
制定召回預案並定期開展模擬召回與處置演練。
- During 2024, there were no instances where sold or submitted-for-inspection products had to be recalled due to quality, safety, or health concerns.
2024年，本集團未發生已售或已送檢的產品因質量、安全與健康原因須召回的事件。

Product labeling
management
產品標識管理

- Strictly comply with national standards and regulations, ensuring clear and prominent product labelling of products
嚴格遵守國家相關標準和規定，在顯著位置對產品進行清晰地標識標記
- For liquid and gaseous chemical products, clearly indicate key indicators such as main components and pressure ranges, as well as safety warnings
對於液體和氣體化工產品標明產品主要成分、壓力範圍等關鍵指標，標注安全警示信息
- Prepare comprehensive, compliant product instructions and update them regularly, while providing electronic versions on the official website to ensure that customers can access the latest and accurate usage information
編制內容豐富、全面、合規的產品說明書並及時更新，同時在官網提供電子版本，確保客戶能夠獲取最新、最準確的產品使用信息

Product traceability and recall
management
產品追溯與召回管理

- Adopt advanced information technologies to achieve full traceability of product quality, thus providing strong support for identifying and resolving quality issues
佈局先進的信息化技術，實現產品質量的全程追溯，為質量問題的排查和解決提供有力支援
- Establish a stringent quality monitoring system and market feedback mechanism. Upon identifying quality issues, defects, or flaws in products that have been sold, immediately initiate recall and quality improvement procedures to control risks
建立嚴格的質量監控體系與市場質量反饋機制，售後產品一旦發現質量、缺陷、瑕疵等問題，立即啟動產品召回和質量改進程式，及時控制風險

QUALITY CAPABILITY AND CULTURE DEVELOPMENT

質量能力和文化建設

The Group places significant importance on cultivating internal quality capabilities and fostering a strong quality culture. We actively organise initiatives such as Quality Month, Quality-Trustworthy Team Achievement Sharing Sessions, training programmes, and promotional campaigns. Additionally, we engage in external collaborations and exchanges to enhance our quality control capability. Our focus extends to implementing internal quality incentives and nurturing a robust quality culture that encourages all employees to strive for excellence. This collective commitment cultivates a quality-conscious environment that serves as a solid foundation for the sustainable and stable development of the enterprise.

本集團十分重視內部質量能力與文化建設，通過積極開展質量月、質量信得過班組成果分享會、培訓與宣貫，積極參與外部合作交流等活動提升質量管控能力，注重內部質量激勵與質量文化塑造，形成全員參與、精益求精的質量意識，為企業的持續穩定發展築牢堅實根基。



The Group participated in the Jiangxi Provincial 45th Quality Management Group Congress with five research projects, securing two “QC First-Class Achievement Awards” and three “QC Second-Class Achievement Awards”.

本集團攜五個課題參與江西省第45次質量管理小組代表大會，其中兩個課題獲「QC質量小組成果一等獎」，三個課題獲「QC質量小組成果二等獎」。

QUALITY MONTH ACTIVITIES

質量月活動

In 2024, the Group launched a series of Quality Month activities under the theme “Advancing Quality-Driven Efficiency and Forging a Quality-Powered Enterprise”, aiming to strengthen quality awareness and uphold a heightened sense of responsibility for product quality enhancement.

2024年，本集團開展了以「推進提質增效、鑄就質量強企」為主題的質量月系列活動，強化質量意識，提高產品質量責任心。

Organised quality strategy workshops to tackle customer pain points and enhance quality management 組織質量專題研討會，解決客戶痛點，促進質量管理提升	Launched a Quality Commitment Signing Campaign, and display quality slogan banners and case boards and thematic bulletin boards on site 開展質量承諾簽字活動，現場懸掛質量標語、製作質量案例展板、專題壁報
Held a Quality Pledge Ceremony 舉行質量宣誓	Held the quality storytelling sessions focused on efficiency - driven innovations 舉辦「提質增效」質量故事分享活動
Held a hand-drawn comic contest themed "Quality in My Heart" 舉辦「質量在我心」手繪漫畫創作大賽	Conducted market immersion visits by "division heads" to capture customer insights 開展事業部「一把手」下市場活動，傾聽客戶聲音
Organised a symposium on "Ten Quality Principles & Strategic Goals" 組織「質量十大原則、質量目標」大討論	Offered quality excellence awards to spotlight "role models" 樹立「質量標兵」，宣傳優秀事蹟



XLX Group convened its 2024 Annual Quality Conference on 4 November, with over 300 attendees. Relevant heads reported on quality issues, analysed causes, and outlined improvement strategies, followed by a solemn quality management pledge.

心連心集團於11月4日召開2024年度質量大會，共計300餘人與會，相關負責人匯報質量問題、原因及改進思路並對質量管理進行莊重承諾。

INSTITUTIONALISED QUALITY MANAGEMENT PRACTICES

常態化質量管理

XLX Group institutionalises capability-building workshops, monthly QC task force meetings on quality and safety coordination, and other initiatives to analyze quality complaints, prioritise critical quality issues, and address root causes. Through implementing the Performance Excellence Model and lean quality management practices, the Group ensures the stability and reliability of product and service quality.

本集團常態化開展拓展訓練、QC 攻關月度質量安全調度專題會等活動，分析質量投訴、聚焦關鍵質量問題、公關核心問題，實施卓越績效模式，精益質量管理，確保產品質量和服務質量的穩定性和可靠性。



The "Six Plans" to Enhance Quality Awareness 質量意識提升「六個一」活動行動方案



Promote Management through Enhancing Awareness

思維促轉變

Regular summary meeting 定期會議總結

We hold regular meetings to clarify work contents for each stage and make corresponding work plans. Through implementing these plans, employees will have a deep understanding of quality control

組織召開工作例會，明確各階段工作內容，制定工作計劃，以計劃促執行，在執行中深化質量知識



Cadres
骨幹

Incorporate quality awareness into daily work 日常工作融入質量

We integrate the 25 principles of internal quality control into the work of frontline staff and employees, promoting the integration of quality awareness into daily work

將內部質量管理25要素融入各一線崗位及員工的工作內容，促進質量意識融入日常



Frontline staff and employees
一線崗位及員工

Post CTQs at construction site 現場張貼關鍵 CTQ

CTQs are prominently posted to enhance on-site quality control capabilities

將關鍵質量控制點CTQ張貼在醒目位置，提升現場質量管理控制能力



Management
管理

Promote On-Site Management through the Leadership of Cadres and then the Daily Work of Employees
以點（骨幹作用）帶面（員工日常工作）促改善（現場管理提升）

TRAINING EMPOWERMENT 培訓賦能

XLX Group regularly conducts quality-awareness training for all employees, instilling the principle of “quality first” in every individual. This training encourages employees to consciously adhere to quality management systems and operational procedures, ensuring stringent quality control at every stage of the process. Furthermore, we provide quality training for relevant personnel at our suppliers, ensuring they fully understand the Group's quality requirements and standards. This initiative guarantees that the raw materials supplied consistently meet our stringent criteria.

本集團定期組織員工參加質量意識培訓，使每位員工都樹立「質量第一」的觀念，自覺遵守質量管理制度和操作規程，嚴把質量關。同時，我們對供應商的相關人員開展質量培訓，使其了解本集團的質量要求和標準，確保所供應的原材料符合要求。

QUALITY INCENTIVES 質量激勵

XLX Group actively cultivates a “Positive-Energy” quality incentive platform by implementing a regular “Quality Honour” evaluation scheme. Employees who make significant contributions to preventing, detecting, resolving, and improving product quality and safety receive both material and spiritual rewards. Additionally, we take a strict stance against quality issues that arise from a lack of responsibility or inadequate job performance.

本集團積極營造質量「正能量」激勵平臺，制定「質量榮譽」常態化評比方案、對有助於預防、發現、解決、改良、精進產品質量與安全的人員給予物資與精神獎勵。同時，我們對因責任心、人員履職不到位導致的質量問題給予嚴肅處理。



High-Quality Service

品質服務

XLX Group has consistently adhered to a “customer-centric” and “excellence-driven, integrity-based” service philosophy. By establishing and innovating the Co-Service Model for client management, the Group fosters cross-functional collaboration and leverages digital empowerment to deliver exceptional customer experiences.

心連心集團始終堅守「以客戶為中心」「至精至誠」的服務理念，建立並創新「共服務」的客戶管理與服務模式，多團隊協調配合，借助數字化技術賦能客戶服務，致力於打造卓越的客戶體驗。

CUSTOMER SERVICE MANAGEMENT SYSTEM

客戶服務管理體系

The Group has formulated and consistently implemented internal management protocols, including the XLX Group Market Feedback Management System, the XLX Customer Satisfaction Survey Regulation, the Guidelines for Quality Management, Customer Satisfaction, Monitoring and Measurement (GB/T 19014-2019), and the XLX Group Complaint Escalation Control Protocol, in compliance with applicable laws and regulations. Additionally, the Group is dedicated to the continuous establishment and enhancement of its service system. We are transforming our marketing strategy, optimising the organisational structure of our marketing team and performance assessment mechanisms. A marketing committee has been established to oversee these initiatives, alongside a strategic expansion and improvement of our service network. These efforts are designed to enhance brand influence, increase customer satisfaction, and foster loyalty.

本集團依循相關法律法規制定並一貫執行《心連心集團市場反饋管理制度》《心連心客戶滿意度調研管理規定》《質量管理、顧客滿意、監視和測量指南》《投訴處理升級管控方案》等內部管理規程。同時，我們持續建立與完善服務體系，變革營銷戰略，優化營銷組織架構與績效考核機制，成立營銷委員會，佈局與完善服務網絡，以提升品牌影響力、客戶滿意度與忠誠度。

XLX Group Customer Service Network and Capacity Building 心連心集團客戶服務網絡與能力建設

Establishment of service stations/service centres

設立服務站/服務中心

- Create an Integrated Tripartite Model of “Blending Centres + Testing Laboratories + High-Efficiency Agricultural Service Centres” and deliver a one-stop solution covering “Soil Testing, Formula Customisation, Production, Supply, and Application”, empowering farmers to reduce fertiliser usage while boosting agricultural efficiency.
建立「配肥中心+化驗室+高效農業服務中心」三位一體的推廣模式，形成「測、配、產、供、施」一體化服務，助力農民實現減肥增效。
- Over the years, agrochemical service centres at all levels have delivered free soil testing and fertiliser formulation services on 55,467 occasions. They have trained more than 500,000 farmers and screened over 20,000 science and technology films and CDs. Additionally, more than 10,000 science and technology lectures have been conducted, and over 2 million copies of popular science promotional materials have been compiled and distributed free of charge.
多年來，各級農化服務中心累計已提供免費測土配方服務55,467次，培訓農民 50余萬人，放映科技電影及光碟2萬多場，開展科技講座萬餘場，編制並無償發放科普宣傳資料200多萬冊。

Development of an all-round service system

建立全方位服務體系

- Develop eight service systems, encompassing agro-chemical services, planting management, marketing promotion, financial support, and high-efficiency logistics, to comprehensively meet the diverse needs of large-scale farmers.
構建包括農化服務、種植管理、營銷推廣、金融支援和高效物流等在內的八大服務體系，全方位滿足大戶的需求。

Building a marketing team

建設營銷隊伍

- Step up efforts to enhance business acumen and service capabilities of employees through internal training courses, expert lectures, and practical hands-on operations.
通過開展內部培訓課程、邀請專家講座、組織實踐操作等方式，不斷提升員工的業務水平和服務能力。
- Incorporate customer service quality into employee assessment indicators. Provide employees demonstrating exceptional performance with recognition and rewards, thereby motivating the workforce to actively elevate service levels and fostering a positive service culture.
將客戶服務質量納入員工考核指標，對表現優秀的員工給予表彰和獎勵，激勵員工積極提升服務水平，形成良好的服務氛圍。

Applied IT and big data

應用信息化與大數據

- Draw up a nationwide “soil map”, incorporating over 50,000 soil sample data. Realise interconnection among five major data platforms, namely soil data, agricultural technology services, crop data, market services, and business services, effectively linking end-users and dealers.
繪製覆蓋全國的「土壤地圖」，收納逾5萬個土壤樣本數據，並將土壤數據、農技服務、作物數據、市場服務、業務服務等五大數據平臺互聯互通，有效連結終端使用者、經銷商等。
- Innovate online service platforms to offer a comprehensive range of online courses and expert services, including agricultural technology knowledge, plant protection solutions, and expert consultations. This platform provides farmers with convenient and efficient technical support.
創新線上服務平臺，提供全方位的農技知識、植保方案、專家問診等線上課堂與專家服務，為農戶提供更便捷、高效的技術支援。

Customer feedback mechanism enhancement

完善客戶反饋機制

- Collect customer opinions and suggestions through diverse channels to promptly discern customer needs and market trends. This enables the Group to adapt and enhance its products and services, thereby continuously optimising the customer service network.
通過多種渠道收集客戶意見和建議，及時了解客戶需求和市場變化，以便對產品和服務進行調整和改進，不斷優化客戶服務網絡。

Case 案例

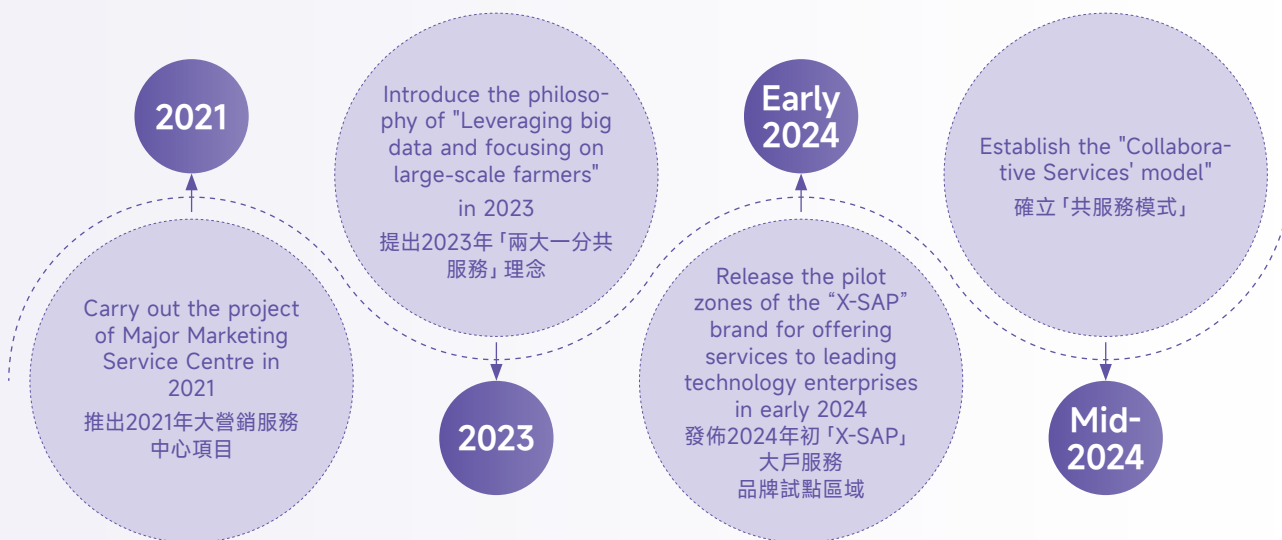
“Co-Service Model, XLX-Driven Mission” – XLX Group’s efforts to build an institutionalised agro-service ecosystem 「共」服務「心」征程，心連心集團打造全新農資服務生態圈

Under the theme of “Embracing the Future, XLX-Driven Innovation”, XLX Group held its 2024 Inaugural Service Partner Summit and Co-Service Model Launch Conference in Xiantao City, Hubei Province on 24 June 2024, attracting nearly 300 service providers. In mid-November 2024, the Group convened the 2025 Winter Storage Marketing Summit in Tianmen and Miluo, Hubei Province, with over 260 XLX service providers in attendance.

The “Collaborative Services’ model” innovatively launched by our Group aims to closely cooperate with core customers to jointly serve large-scale farmers. It provides a series of services for service providers, including high-quality products, efficient logistics delivery, low-cost financing, comprehensive brand promotion, scientific agricultural technology guidance, precise soil testing and formula design, etc., and offers all-round planting solutions.

以「擁抱未來，從心出發」為主題的心連心集團 2024 年首屆服務商招商會暨共服務模式首發會於 2024 年 6 月 24 日在湖北省仙桃市舉行，有近 300 名服務商參加了此次會議。同時，本集團於 2024 年 11 月中旬在湖北天門、汨羅兩試點召開 2025 年冬儲營銷峰會，260 餘名心連心服務商與會。

本集團創新推出的「共服務模式」，旨在與核心客戶緊密合作，共同服務種植大戶，為服務商提供高質量產品、高效率物流交付、低成本融資、全方位的品牌宣傳、科學的農技指導、精準的測土配方等一系列服務，提供全方位的種植解決方案。



“Transformation & Upgrade, Service-Driven Future” Marketing Summit convened by XLX Group
召開「轉型再升級，服務贏未來」營銷峰會

PRODUCT ACCESSIBILITY AND AFFORDABILITY

產品可及與可負擔性

XLX Group, through its leading scientific research capabilities, extensive sales network, and efficient logistics and distribution system, has significantly enhanced product accessibility. By optimising production processes to reduce costs, introducing diversified product packages, and implementing a flexible pricing strategy, we have effectively improved product affordability. This enables a broad spectrum of agricultural practitioners to select high-quality fertilisers.

ACCESSIBILITY

可及性

We have established over 5,000 local rural township and village outlets across the country. And export to regions such as South Korea and Southeast Asia. This extensive network ensures that farmers—especially those in remote areas and small-scale growers—can obtain the necessary fertilisers in a timely manner. Consequently, this guarantees that crop cultivation is conducted punctually and according to demand. Our efforts promote orderly and balanced agricultural development while contributing to food security, fostering rural economic prosperity, and maintaining social stability.

Additionally, the primary pharmaceutical intermediate produced by Xinxiang Ruicheng, serves as the starting material for Tenofovir and Adefovir, innovative medications for the prevention and treatment of AIDS and hepatitis B. In addition to fulfilling domestic demand, adenine is also exported to the United States, contributing significantly to the global fight against major infectious diseases.

AFFORDABILITY

可負擔性

Leveraging the scale effect of multiple production bases and adopting a “fertiliser-based, fertiliser-chemical integration” model for holistic industry development, XLX Group continuously optimises production processes while strictly controlling energy consumption and implementing effective price management. These actions enable optimal resource allocation and cost control, ensuring that our products are competitively priced. As a result, customers can acquire high-quality and efficient products at relatively low prices. Moreover, we place a strong emphasis on research and development innovation by launching a wide range of high-efficiency fertiliser products. We also provide agrochemical services and technical support to empower farmers to achieve greater yields with lower input costs. In May 2024, in response to an industry association's call, the Group announced an initiative on urea supply stability on its official website. We committed to operating at full capacity to ensure market supply while actively working to maintain stable prices in the market.

心連心集團憑藉領先的科研能力、廣泛的銷售網絡與高效的物流配送體系，極大提升了產品可及性；同時通過優化生產流程降低成本，推出多樣化產品套餐與靈活定價策略，有效增強了產品的可負擔性，助力廣大農業從業者選用優質化肥。

本集團建立了 5,000 多個基層鄉鎮網點，輻射全國，並遠銷韓國、東南亞等國家和地區，能確保廣大農戶，尤其是偏遠地區和小規模種植者及時獲取所需化肥，保障農作物種植按時按需進行，推動農業有序、均衡化發展，為保障糧食安全、促進農村經濟繁榮以及維護社會穩定貢獻力量。

新鄉瑞誠主打的醫藥中間體產品腺嘌呤，作為生產防治艾滋病和乙肝的新型醫藥泰諾福韋酯、阿德福韋酯的起始原料，在滿足國內需求的同時出口美國、為全球抗擊重大傳染性疾病貢獻著關鍵的基礎力量。

通過多基地並舉的規模效應、「以肥為基，肥化並舉」的全產業鏈發展模式、持續優化生產工藝、嚴控能耗指標、實施價格管理等行動，本集團實現資源優化配置和成本控制，確保產品價格更具競爭力，讓客戶能夠以相對較低的價格購買到高質高效產品。同時，我們注重研發創新，推出多種高效肥料產品，並提供農化服務與技術支援，讓農戶以更少的投入獲得更多的產出。2024 年 5 月，本集團響應協會號召，在官網發佈尿素保供穩價倡議，承諾滿負荷生產，全力保障市場供應，積極維護市場價格穩定。

RESPONSIBLE MARKETING

責任營銷

XLX Group adheres to relevant laws and regulations to establish a robust marketing system that effectively connects with and engages customers. The Group has developed 15 standardised documents, including a one-region-one-policy channel strategy and anti-diversion management regulations. We have constructed a platform-based, distributed, multi-centre organisation that unifies brand logos and messaging while standardising product packaging design and instruction manuals. Media publicity and promotional activities are carried out in full compliance with applicable regulations. Additionally, we enhance the training and knowledge dissemination for employees, dealers, and service providers regarding compliant marketing practices to safeguard customer rights and interests.

To promote the standardisation and effectiveness of the Group's sales management processes, we conduct regular inspections and audits on the internal control mechanisms related to risk management within sales operations. In 2024, the Group was not involved in any incidents of serious non-conformity between product or service information/labelling nor any major violations related to marketing communications.

心連心集團遵循相關法律法規建立健全連結和觸達客戶的營銷體系，制定一區一策渠道策略、防竄貨管理規定等標準化文件 15 份，建立平臺化加分散式、多中心的組織，統一品牌標識、統一宣傳口徑，規範產品包裝設計與說明書，合規開展媒體宣傳與推廣活動，同時加強對員工、經銷商與服務商的合規營銷能力培訓及知識宣貫，以保護客戶權益。

為了促進本集團銷售管理流程的規範化和有效性，我們對銷售管理流程的內控風險管理情況進行檢查與審計。2024 年，本集團不涉及產品和服務信息與標識嚴重不符的違規事件，亦不涉及與營銷傳播相關的重大違規事件。



Responsible Marketing Training of XLX Group

心連心集團責任營銷培訓情況

Cumulative training duration per capita

人均累積培訓時長

30 Hours
小時

Number of participants

參與人數

120 People
人

XLX Group's marketing strategy & execution capability enhancement bootcamp: live training session

心連心集團營銷策劃與執行能力提升訓練營培訓現場

MANUALS MANAGEMENT

說明書管理

We have assembled a cross-departmental professional team responsible for drafting, updating, and refining the instruction manuals. These manuals encompass comprehensive content and undergo rigorous review by multiple departments, including technical experts and quality management personnel. This meticulous process ensures that the instruction manuals are compliant, scientifically robust, practical, and current.

我們組織跨部門專業團隊編寫、更新、完善說明書，內容涵蓋齊全，並經技術專家、質量管理人員等多部門審核，保證說明書的合規性、科學性、實用性與及時性。



CUSTOMER COMPLAINT AND SATISFACTION MANAGEMENT

客户投诉与满意度管理

XLX Group has established five key market feedback management measures: consultation, sampling inspection, complaint handling, business assistance, and solicitation of demands and suggestions. To facilitate this process efficiently, we have developed digital systems such as the XLX Customer Feedback System to promptly address external customer feedback. Internally, we conduct thorough investigations to identify root causes of issues effectively; this approach enables continuous improvement in product quality and service delivery while enhancing overall customer satisfaction.

心連心集團制定了諮詢、抽檢、投訴、業務協辦、需求及建議等五大市場反饋管理辦法，研發並使用心連心客戶反饋等數字化系統，對外快速高效處理客戶反饋，對內深根究源解決問題，持續改進本集團產品和服務質量，提升顧客滿意度。

Product Stewardship Indicators of XLX Group
本集團產品責任相關指標情況

Indicator 指標	Unit 單位	2024	2023
Number of market feedbacks received by the customer service platform 客服平臺受理市場反饋數量	Case 起	14,090	13,792
Among them: Consultations 其中: 諮詢	Case 起	12,841	12,584
Sampling inspections 抽檢	Case 起	543	673
Complaint filing and resolution 投訴及處理	Case 起	452	406
Suggestions and demands 建議及需求	Case 起	254	129
Number of products sold or shipped subject to recalls for safety and health reasons 已售或已運送產品數中因安全與健康理由而須回收的數量	Case 件	0	0
Number of complaints received-related to product health and safety 接獲投訴數目—與產品健康和 safety 有關	Case 件	0	0
Number of complaints received-related to customer privacy 接獲投訴數目—與客戶私隱有關	Case 件	0	0
Customer satisfaction 客戶滿意度	Case 件	>90	>90

CUSTOMER COMPLAINTS
客戶投訴

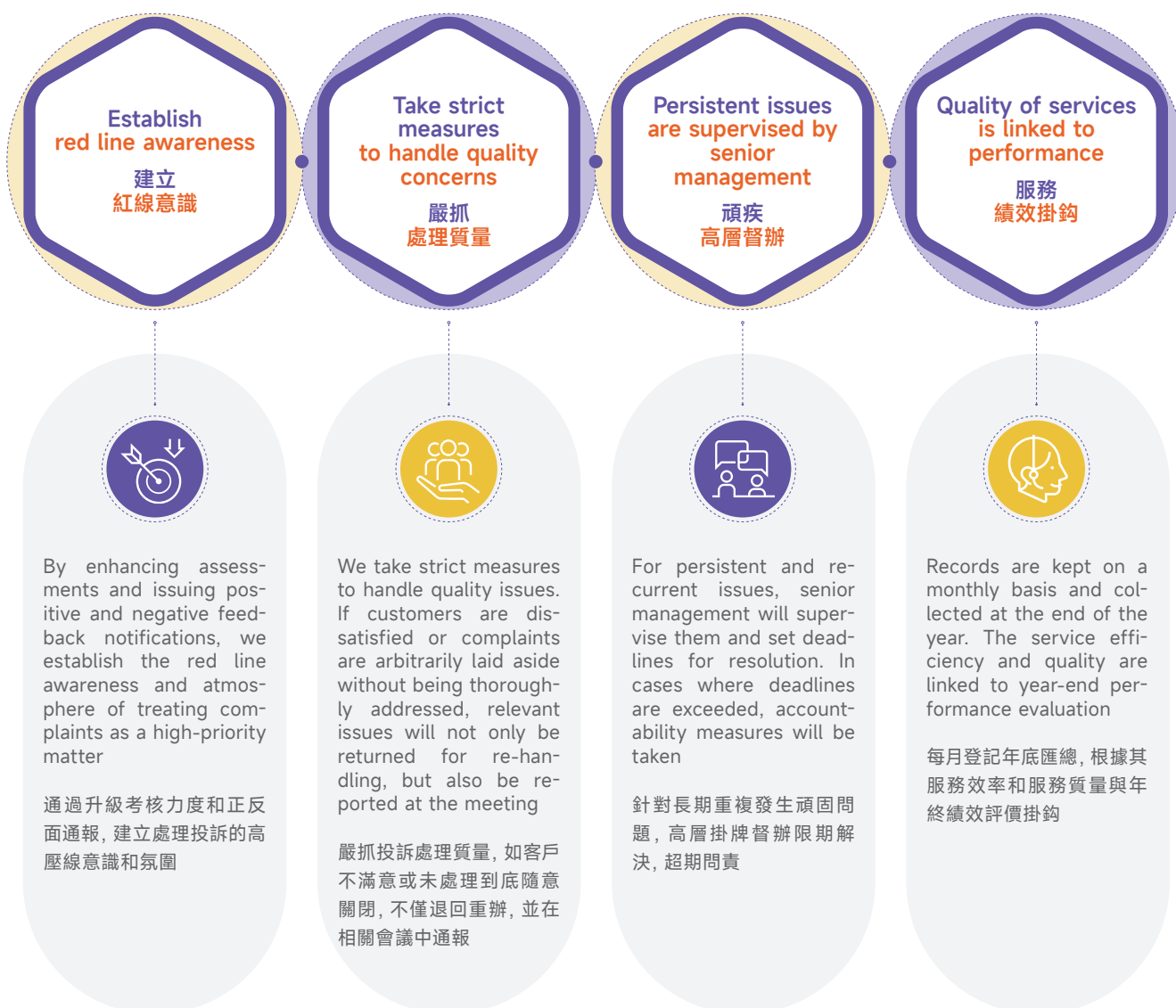
XLX Group has established a customer call centre and an online customer service platform to attentively listen to customers' needs and expectations. Adhering to the principle of “customers first—promptly addressing external issues before delving into internal causes”, the Group resolves customer issues in a timely manner to eliminate dissatisfaction. Internally, we conduct thorough investigations to identify root causes and prevent recurrence of similar problems.

本集團設立客戶呼叫中心和線上客服平臺傾聽客戶訴求與期許，遵循「客戶至上先外後內，歸因於內追根究源」的原則，第一時間解決客戶問題，消除客戶不滿，同時內部追根究源，從根源解決問題避免重複發生。

The Group implements a closed-loop management system for complaints, whereby work orders are only closed after customer service representatives conduct follow-up visits and confirm customer satisfaction. If customer's express dissatisfaction, these work orders are returned for reprocessing. For complex incidents or significant market complaints requiring specialised attention, the relevant responsible departments carry out market follow-up visits. Additionally, the Group has established a rewards and penalties system for managing customer complaints. Appropriate penalties are imposed in cases where there are reports of poor service attitudes or if the monthly complaint handling timeliness rate falls below 90%.

本集團對投訴進行閉環管理，客服回訪客戶滿意後關閉工單，不滿意退回重辦。複雜事件、專業性強或影響大的市場投訴，由相關責任單位進行市場回訪。同時，我們制定客戶投訴管理獎懲辦法，對客戶投訴客服服務態度不好、當月處理及時率低於 90% 等情況進行相應懲處。

Implementation Plan for Complaint Handling Escalation and Control 投訴處理升級管控實施方案



The Group has developed multiple channels for customer feedback, including a service hotline, online support, and email communication. This ensures that customers can easily report any issues or provide feedback regarding their product usage at any time. In 2024, the Group received a total of 452 complaints from customers through various channels. The response rate was 100%, with all complaints resolved satisfactorily.

本集團設立多種客戶反饋渠道，如客服熱線、線上客服、郵箱等，方便客戶隨時反饋產品使用過程中遇到的問題和意見。2024年，本集團通過各渠道共收到客戶投訴452起，回應率100%，投訴解決率100%。

CUSTOMER SATISFACTION MANAGEMENT 客戶滿意度管理

To enhance customer satisfaction further, the Group regularly conducts follow-up visits with clients, engages in market research activities, holds distributor meetings, and organises seminars with core customers. We also invite clients to visit our facilities for hands-on experiences and discussions to gauge their satisfaction levels concerning product quality and service quality while understanding their evolving needs and expectations. This feedback loop enables us to continuously refine our products and services.

本集團定期對客戶進行回訪、市場調研、召開經銷商會議，組織核心客戶座談會，並邀請客戶到廠體驗與洽談，了解客戶對產品質量、服務質量的滿意度，以及客戶的新需求和期望，不斷優化產品和服務，提升客戶體驗。

The Group designs comprehensive quarterly/annual questionnaires tailored specifically for different types of customers as well as various products. For instance, questionnaires targeted at farmers encompass evaluations on multiple aspects such as satisfaction with product quality (urea, compound fertilisers), packaging efficiency, fertiliser efficacy, cost-effectiveness. These questionnaires also assess brand promotion efforts, promotional activities, agrochemical support services, purchasing convenience; as well as personnel service quality. This holistic approach allows us to gain valuable insights into how our clients perceive our products and services. In 2024, all relevant products from the Group successfully met established annual customer satisfaction targets.

本集團針對不同類型的客戶和產品，設計詳細且有針對性的季度/年度調查問卷，如針對農戶的問卷中，涵蓋了對尿素、複合肥、水溶肥等各類產品的質量、包裝、肥效、性價比等多方面的滿意度調查，還涉及品牌宣傳、促銷活動、農化服務支援、購買便利性、人員服務等多個維度的評價，全面了解客戶對公司產品和服務的感受。2024年，公司相關產品均達成年度客戶滿意度目標。



People-Centric Development: Striving Together with XLX

人本共好 奮鬥心連心

XLX Group firmly establishes a safety development philosophy, respects labour and workers, protects employee rights in accordance with the law. The Company offers competitive compensation and benefits, improves training plans, and ensures smooth career advancement channels. Besides, it prioritises employee health and safety and cares for employees' work and life, striving to achieve the unification of corporate and employee values.

心連心集團樹牢安全發展理念，尊重勞動及勞動者，依法保障員工權益，重視員工身心健康與安全，提供富有競爭力的薪酬福利，完善培訓計劃，暢通晉升通道，關心員工工作與生活，致力於實現企業與員工價值統一。

SDGs Addressed in this Chapter:

本章所回應的 SDGs:



Major Material Topics of Sustainability Covered in this Chapter:

本章所涉及的重大可持續發展議題:

- ◆ Occupational Health and Safety Management
職業健康與安全管理
- ◆ Chemicals Management
化學品管理
- ◆ Compliance Employment
合規僱傭
- ◆ Employee Rights and Benefits
員工權益與福利
- ◆ Staff Development and Training
員工發展與培訓



Safeguarding Employee Health and Safety

守護員工健康安全

XLX Group adheres to a management policy prioritising safety, prevention, and comprehensive management. By establishing a robust health and safety management system, the Group implements comprehensive occupational health protection, executes effective emergency management and rescue systems, and fosters a health and safety culture with full employee participation. Additionally, the Company promotes refined operational safety management, deploys advanced digital and intelligent workshop management, and provides customised "One Enterprise, One Strategy" guidance. These measures collectively strengthen the Group's safety production framework and safeguard employees' lives and health. In 2024, the safety risk level of the Group's campuses was rated as Level D (low). In 2024, the Group invested RMB 28,713,300 in occupational health and safety.

The Group includes occupational health and safety goals such as fatalities and lost-time injury rate per 200,000 working hours in the performance evaluation systems of management and execution levels. The Group sets incentive quotas for departments and subsidiaries, linking the achievement of annual goals to incentives. Safety goals are cascaded from top to bottom, with all employees signing safety target responsibility agreements, directly linking individual performance to compensation. In 2024, all occupational health and safety targets were achieved, and no significant occupational health and safety incidents have occurred in the past three years.

心連心集團堅持安全第一、預防為主、綜合治理的管理方針，通過搭建完善的健康與安全管理體系、推進細緻的作業安全管理、施行全面的職業健康防護、執行有效的應急管理與救援體系、佈局先進的數字化與智能化車間管理、開展個性化的「一企一策」輔導、營建全員參與的健康與安全文化氛圍，全方位築牢企業安全生產的堅固防線，為員工的生命健康保駕護航。2024 年本集團園區安全風險等級被評為 D 級（較低）水平。2024 年，本集團員工職業健康與安全投入 2,871.33 萬元。

本集團將傷亡事故、二十萬工時損工傷害率等職業健康與安全目標納入管理層和執行層的績效考核體系中。本集團對部室及各子公司設定激勵額度，將年度目標完成情況與激勵相掛鉤。同時，安全目標自上而下分解，全員承接並簽訂各級安全目標責任書，個人目標完成情況與薪酬直接掛鉤。2024 年，本集團職業健康與安全相關目標全部達成，近三年來我們未發生重大職業健康與安全事故。

Occupational Health and Safety Goals Achievement 職業健康與安全目標達成情況

Indicator 指標	Unit 單位	Target Value 目標值	Achievement Status 達成情況
Fatalities 傷亡事故	Incidents 件	0	Achieved 達成
Grade A process, equipment, and fire accidents A級工藝、設備、火災事故	Incidents 件	0	Achieved 達成
Concealment and misreporting of accidents 謊報瞞報事故	Incidents 件	0	Achieved 達成
Lost-time injury rate per 200,000 working hours ²⁵ 二十萬工時損工傷害率 ²⁵	%	<0.25	Achieved 達成

²⁵ 指在每二十萬個工時的工作時間內，因工傷導致的工時損失情況的比率，二十萬工時損工傷害率 = 工傷損失工時數 / 總工時數 * 200000%。
²⁵ Refers to the ratio of work-hour loss due to work-related injuries for every 200,000 working hours. The 200,000 working hours injury rate = work-hour loss due to work-related injuries/total working hours*200,000%.

Indicator 指標	Unit 單位	Target Value 目標值	Achievement Status 達成情況
Occupational disease incidence rate 職業病發生率	%	0	Achieved 達成
Hidden danger rectification rate 隱患整改率	%	100	Achieved 達成

Health and Safety Management Indicators for the Past Three Years
本集團近三年健康安全管理指標

Indicator 指標	Unit 單位	2024	2023	2022
Number of work-related fatalities 因工亡故人數	Person 人	0	0	0
Lost days due to work injury 因工損失工作日數	Day 天	0	/	/
Recordable employee injury rate (per 200,000 working hours) ²⁶ 員工可記錄工傷率 (二十萬工時) ²⁶	-	0.02	/	/

HEALTH AND SAFETY MANAGEMENT SYSTEM 健康與安全管理體系

XLX Group strictly complies with relevant laws and regulations, including the Fire Control Law of the PRC, the Work Safety Law of the PRC, and the Law of the PRC on Prevention and Control of Occupational Diseases. Additionally, it benchmarks against ISO 45001 standards and international best practices. The Group has established and consistently implemented internal management systems such as the Occupational Health and Safety Management Procedures and the Emergency Plan Management Rules. The Group has built a comprehensive health and safety responsibility network from management to frontline employees, centred around the “Xin'an” management system, ensuring the safe and stable operation of the company. As of the end of 2024, the main subsidiaries of the Group's three major bases had all obtained ISO 45001 certification for occupational health and safety management systems. In addition, we regularly conduct internal and external audits.

心連心集團嚴格遵守《中華人民共和國消防法》《中華人民共和國安全生產法》《中華人民共和國職業病防治法》等相關法律法規並對標 ISO 45001 標準和國際最佳實踐，制定並一貫執行《職業健康安全管理程序》《公司應急預案管理規定》等內部管理制度。本集團以「心安」管理體系為核心，構建起從管理層到一線員工的全員健康與安全責任網，保障企業安全穩定運行。截至 2024 年末，本集團三大基地的主要子公司均已獲得 ISO 45001 職業健康安全管理體系認證，並定期開展體系認證內部與外部審核。

²⁶The data of total recordable incidents is currently limited to the three subsidiaries under the Group: Henan XLX, Xinjiang XLX, and Jiangxi XLX. Data not disclosed in previous years is marked with “/”.

²⁶ 員工可記錄工傷數據的覆蓋範圍僅聚焦於本集團旗下三家主要生產主體公司，分別為河南心連心、新疆心連心以及江西心連心。以前年度未能統計披露的數據我們用「/」表示。

Case 案例

Official launch of XLX Group's "Xin'an" management system 心連心集團「心安」管理體系正式發佈

On 29 July 2024, XLX Group held the official launch of the "Xin'an" management system and signed off on its implementation. The "Xin'an" management system is centred on "people-oriented" principles. Based on the process safety management system, it integrates with the dual prevention mechanism, safe production standardisation system, DuPont safety management, occupational health and safety management system. The "Xin'an" management system also combines domestic advanced enterprise management experiences and the Company's actual management characteristics. With the expertise of the expert team from the China Academy of Safety Science and Technology, it took nearly three years to develop this unique "Xin'an" management system, which lays the foundation for the overall improvement of the Group's safety management.

心連心集團於2024年7月29日召開「心安」管理體系發佈會並對「心安」管理體系進行簽字發佈。「心安」管理體系是以「以人為本」為核心，以過程安全管理體系為基礎，融合雙重預防機制、安全生產標準化體系、

杜邦安全管理、職業健康安全管理體系、國內先進企業管理經驗及公司實際管理特點，借助中國安全生產科學研究院專家團隊經驗智慧，歷時近3年，形成獨具特色的「心安」安全管理體系，為推動本集團安全管理水平的整體提升奠定了基礎。



XLX Group held the official launch of the "Xin'an" management system

心連心集團召開「心安」管理體系正式發佈會

Main Innovations of the "Xin'an" Management System 「心安」管理體系主要創新點

Advanced concepts and standards 先進理念與標準

We integrate the DuPont safety management system, safety standardisation system, dual prevention mechanism, process safety management system, and occupational health system, etc

融合了杜邦安全管理體系、安全標準化體系、雙重預防機制、過程安全管理體系及職業健康體系等

Refined elements 精細化要素構建

There are 15 primary elements such as education and training, work safety, equipment management, transportation safety, occupational health, emergency response, and 79 secondary elements

涵蓋了教育培訓、作業安全、設備管理、運輸安全、職業健康、應急回應等15個一級要素和79個二級要素

Deadlock risk management 閉環風險管理

We adopt scientific methods and tools to identify and assess risks in a comprehensive and systematic way
運用科學的方法和工具，對風險進行全面、系統的識別和評估

We establish and improve a mechanism for hazard identification and rectification to achieve continuous improvement and avoid management stagnation

建立健全隱患排查治理機制，實現閉環管理

Digital Empowerment 數字化賦能

Leveraging information technologies such as the IoT, big data, and cloud computing, we build a safety management information platform for real-time collection, analysis, processing, and sharing of safety information

借助物聯網、大數據、雲計算等信息化技術，搭建安全管理信息平臺，即時收集、分析、處理與共用安全信息

HIDDEN DANGER INVESTIGATION AND SAFETY INSPECTION 隱患排查與安全檢查

Strictly following regulations such as the Interim Provisions on the Investigation and Management of Work Safety Accident Hidden Dangers and the Guidelines for the Investigation and Management of Safety Risks and Hidden Dangers in Hazardous Chemical Enterprises, XLX Group has established internal management regulations and implementation plans for safety inspections and hidden dangers. The Group has developed a sound mechanism for hidden danger investigation and management, implementing a dual prevention mechanism for health and safety risks and promoting a comprehensive hidden danger investigation mechanism involving all employees. These mechanisms cover precise identification, assessment, prevention and control, supervision and inspection, rectification, and evaluation of risks, in order to achieve closed-loop investigation and management of hidden dangers.

The Group implements a prevention-oriented safety management approach to conduct a variety of safety inspections. Based on the content, these inspections are divided into comprehensive safety inspections and specialised safety inspections. Based on the frequency, the inspections comprise daily safety checks, seasonal safety inspections, and pre-holiday and peak-period safety inspections. Based on the coverage, the inspections include accident analogy hidden danger inspection, safety contract hidden danger inspection, pre-resumption safety inspection, and pre-startup safety inspection.

心連心集團嚴格遵循《安全生產事故隱患排查治理暫行規定》《危險化學品企業安全風險隱患排查治理導則》等法規制定內部安全檢查與隱患治理管理規定與實施方案，建立健全隱患排查治理機制，施行健康與安全風險雙重預防機制，推行全員隱患排查機制，涵蓋風險的精准識別、評估、防控、監督檢查、整改、考核，實現隱患排查治理的閉環管理。

本集團執行預防為主的安全管理，根據檢查內容、執行頻次及覆蓋範圍等執行綜合安全檢查、日常安全檢查、季節性安全檢查、專業性安全檢查、事故類比隱患檢查、安全承包隱患檢查、重點時段及節假日前檢查、複產複工前檢查、啟動前安全檢查。

Main Content of Safety Inspection
安全檢查主要內容



The Group enhances employees' risk awareness through special audits and self-assessment of safety management appraisal each year. In 2024, we organised special audits on laboratories, contractors, high-risk operations, and safety instrument system management. We assessed the safety management maturity of 15 subsidiaries, commissioned institutions with national qualifications to conduct safety inspections and evaluations of the Group's production safety conditions, and rectified the identified issues. The hidden danger rectification closure rate reached 100%, effectively ensuring and improving the Group's safety management and standards.

CHEMICALS MANAGEMENT

化學品管理

XLX Group strictly manages the production, storage, and transportation of hazardous chemicals in accordance with laws and regulations including the Regulation on the Safety Management of Hazardous Chemicals, the Regulations on Labor Protection in Workplaces Where Toxic Substances Are Used, and the Public Security Requirements for Storage Sites of Potential Explosives by Chemosynthesis, as well as the requirements of the "Xin'an" management system. To standardise the safety management of hazardous chemicals in production, storage, transportation, and disposal, and to prevent and reduce accidents involving hazardous chemicals, the Group has established detailed management methods, operating procedures, and emergency response plans for hazardous chemicals.

The Group implements the "five dual management" measures for highly toxic, extremely toxic, easily poison-making, and easily explosive hazardous chemicals, including dual acceptance, dual custody, dual dispatch, dual ledgers, and dual locks. Regular emergency drills are conducted for chemical leaks, theft, and loss.

The Group relies on digital platforms, including the hazardous chemical intelligent control system, gas detector, video surveillance system, and fire alarm system to monitor chemical management in real-time across all bases and areas. Additionally, we regularly inspect and maintain related equipment and facilities. We conduct internal special audits, inspections, and evaluations of the effectiveness of each link in the hazardous chemical management process at each base annually and propose improvement suggestions. Furthermore, we invite third-party institutions to conduct special inspections of hazardous chemicals to prevent and reduce safety accident risks caused by chemical leaks and explosions.

本集團每年通過專項審核與安全自主管理考評，提升風險意識。2024年，我們組織了實驗室、承包商、高危作業、安全儀錶系統管理專項審核，評估了15家子公司安全自主管理成熟度，委託具備國家規定的資質條件的機構，對本集團的安全生產條件進行安全檢查與評價，並就發現的問題進行整改，隱患整改閉環率為100%，切實保障並提升本集團安全管理水平與標準。

心連心集團嚴格按照《危險化學品安全管理條例》《使用有毒物質作業場所勞動保護條例》《易制爆危險化學品儲存場所治安防範要求》等法律法規及「心安」管理體系要求對危險化學品的生產、儲存和運輸進行全方位管理。為規範危險化學品登記、採購、生產、銷售、儲存、使用、裝卸、運輸、廢棄等環節的安全管理，確保危險化學品管理環節合規運行，預防和減少危險化學品事故，本集團制定了詳細的危險化學品管理辦法、操作規程和應急預案。

本集團對劇毒、高毒、易制毒、易制爆危險化學品實施雙人驗收、雙人保管、雙人收發、雙本賬、雙把鎖的「五雙管理」管理措施，並定期開展危險化學品的洩漏、盜搶和丟失應急演練。

本集團依託危險化學品智能化管控系統、氣體報警儀、視頻監控系統、火災報警系統等數字化平臺即時監控各基地各區域化學品管理，對相關設備設施進行定期檢查與維護。我們每年對各基地危險化學品管理流程涉及及各環節有效性進行內部專項審核、檢查與評價，並提出改進建議。同時，我們邀請第三方機構開展危險化學品專項檢查，以預防並減少因危險化學品洩漏、爆炸等引發的安全事故風險。

Procurement management 採購管理

- Verify the qualifications of hazardous chemical suppliers to ensure compliance.
對危險化學品採購單位資質進行審驗，確保供應商資質合規。
- Obtain the latest version of safety data sheets and safety labels for purchased hazardous chemicals.
對採購的危險化學品索要最新版本安全技術說明書和安全標籤。
- Purchase controlled substances such as sulfuric acid, hydrochloric acid, and acetone based on the types and quantities approved (registered) by the public security department, and establish a hazardous chemical inventory.
根據公安部門批准（備案）的種類、數量進行購買易制毒品（硫酸、鹽酸、丙酮等），並建立危險化學品名錄。

Production management 生產管理

- Conduct hazard identification and risk assessment for various chemicals involved in the production process and develop corresponding measures. For example, for flammable, explosive, toxic, and harmful hazardous chemicals such as liquid ammonia and methanol, we implement strict protective measures to prevent leaks and explosions.
對生產過程中涉及各類化學品進行危險識別與風險評估並制定相應應對舉措，如對液氨、甲醇等易燃易爆、有毒有害的危險化學品，我們採取嚴格的防護措施，防止洩漏、爆炸等事故的發生。

Storage management 倉儲管理

- Provide suitable storage conditions, such as excellent ventilation, appropriate temperature and humidity, fire prevention, moisture-proofing, and corrosion resistance, to ensure the safe storage of chemicals.
提供適宜的儲存環境，如通風良好、溫度和濕度適宜、防火、防潮、防腐蝕等，確保化學品儲存安全。
- Classify and store chemicals based on their characteristics, such as flammability, explosiveness, toxicity, and corrosiveness, to prevent reactions between different types of chemicals.
根據化學品的特性，如易燃、易爆、有毒、腐蝕等，進行分類儲存，避免不同性質的化學品相互接觸發生反應。
- Place clear labels and warning signs at storage sites, indicating the name, hazardous characteristics, storage requirements, and other information of the chemicals for easy identification and management.
在儲存場所設置明顯的標識和警示標誌，注明化學品的名稱、危險特性、儲存要求等信息，便於識別和管理。

Loading and unloading management 裝卸管理

- Develop strict and standardised procedures, strengthen the review of vehicle and personnel qualifications, and make use of advanced equipment and safety technologies. Establish a comprehensive monitoring and emergency system to ensure refined management as well as safe and compliant operations.
制定嚴格規範流程、加強車輛與人員資質審核、運用先進設備和安全技術、建立全方位監控與應急體系，精細化管理，確保操作安全合規。

Transportation management 運輸管理

- Follow the Measures for the Administration of Road Transportation Safety of Dangerous Goods and refer to the United Nations Recommendations on the Transport of Dangerous Goods. Choose enterprises and vehicles with hazardous chemical transportation qualifications for chemical transport. Transport vehicles are equipped with necessary safety equipment and emergency rescue tools, such as fire extinguishers and leak emergency treatment devices.
遵循《危險貨物道路運輸安全管理辦法》，參照聯合國《關於危險貨物運輸的建議書》，選擇具有危險化學品運輸資質的企業和車輛進行化學品運輸，運輸車輛配備滅火器、洩漏應急處理設備等必要的安全設備和應急救援器材。
- Plan transportation routes to avoid sensitive areas such as densely populated zones and water source protection areas. Consider road conditions and weather factors to ensure safe and reliable transportation.
合理規劃運輸路線，避開人口密集區、水源保護區等敏感區域，同時考慮路況、天氣等因素，確保運輸過程的安全可靠。
- Develop the XLX dangerous chemical vehicle monitoring service platform for refined management of hazardous chemical vehicles.
開發建立心連心危化車輛監控服務平臺，對危化車輛實施精細化管理。

**Sales
management**
銷售管理

- Provide customers with safety labels and safety data sheets and establish a distribution ledger.
向客戶提供安全標籤和安全技術說明書，並建立發放台賬。

**Awareness
management**
意識管理

- Regularly organise employees to participate in chemical safety training and education activities to enhance their safety awareness and operational skills. New recruits must undergo comprehensive training and pass assessments before starting work.
定期組織員工參加化學品安全培訓和教育活動，提高員工的安全意識和操作技能；新員工入職須經全面培訓並考核合格方可上崗。



Conduct special audits of hazardous chemicals at the Jiangxi Base
對江西基地危險化學品開展專項審核



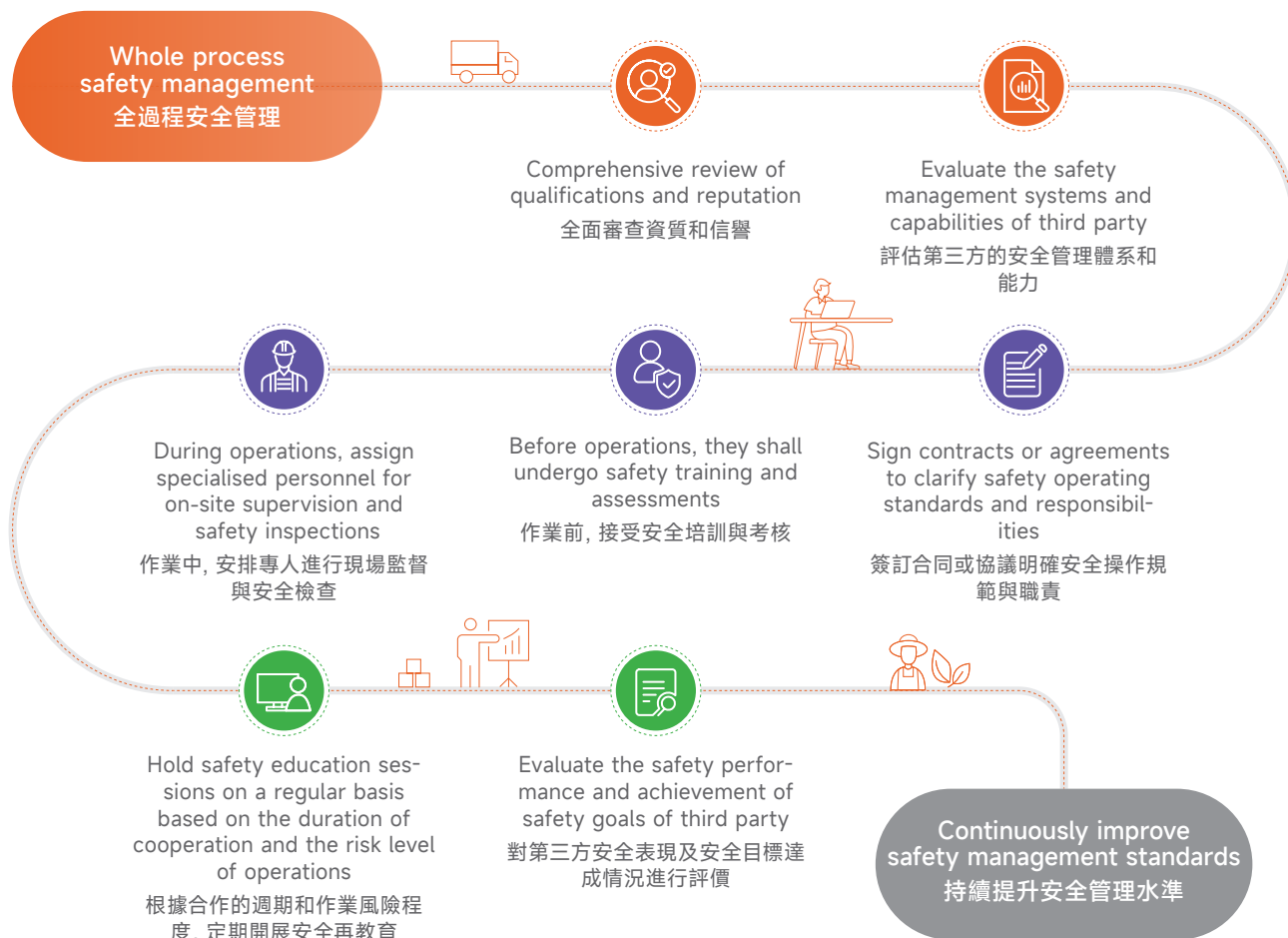
Management of laboratory chemical labelling and storage
實驗室化學品標識與存放管理

THIRD-PARTY SAFETY MANAGEMENT 第三方安全管理

To ensure the safety and compliance of third-party operations within XLX Group's premises, we have established regulations including the Outsourcing Business Management Provisions and the Labour Outsourcing Management Measures to implement closed-loop safety management for third parties. We clearly define reward and punishment measures in safety agreements, appoint dedicated safety officers for third parties, conduct monthly inspections and training sessions, and organise monthly third-party communication meetings. Additionally, third-party managers are required to attend corresponding safe production meetings monthly to develop improvement measures for identified issues. In 2024, the Group conducted special audits of third parties, identifying a total of 133 issues, with a 100% completion rate for issue rectification.

為確保在心連心集團廠區內從事相關作業的第三方工作的安全性與合規性，我們制定《外包業務管理規定》《勞務外包管理辦法》等對第三方開展安全閉環管理。我們在安全協議中明確獎懲措施，設置第三方專職安全員，每月檢查、培訓各1次，並組織1次第三方溝通會。此外，第三方負責人每月還需參加相應的安全生產會議，就發現的問題制定下一步改進措施。2024年，本集團對第三方開展了專項審核，共發現問題133項，問題項整改完成率100%。

Third-Party Safety Closed-Loop Management Flowchart
第三方安全閉環管理流程



SAFETY EMERGENCY MANAGEMENT 安全应急管理

XLX Group strictly abides by regulations such as the Notice from the General Office of the State Administration of Work Safety on Issuing the Safety Measures and Emergency Disposal Principles for the First Batch of Key Regulated Hazardous Chemicals. We have developed and improved emergency response plans and drill management regulations to address potential safety incidents. These frameworks clarify the emergency organisational structure, division of responsibilities, response procedures, and rescue measures to ensure rapid and effective responses. The Group has established a dedicated emergency material warehouse, stocking fire-fighting equipment, leakage control devices, first-aid medicines, and protective supplies.

To test the feasibility of the emergency plans and enhance employees' emergency response and collaboration capabilities, we regularly organise emergency drills, conduct post-drill evaluations, rectify identified issues, and continuously improve our emergency management. The Company organises a comprehensive emergency drill at least once a year, while plant-level specialised emergency drills are conducted at least once every six months. The plant-level dispatch team system (water, gas, steam, and power outage) drill is held once a month. The workshop-level on-site response plan drills are conducted at least once every quarter. All related drill records must be retained for at least three years.

In 2024, the Xinxiang Base, Xinjiang Manas Base, and Jiangxi Base conducted a total of 2,364, 103, and 1,042 health and safety-related emergency drills, respectively. All three bases increased the frequency of drills compared to the previous year.

心連心集團嚴格遵循《國家安全監管總局辦公廳關於印發首批重點監管的危險化學品安全措施和應急處置原則的通知》等法規，針對潛在安全事故，制定並完善應急預案與演練管理規定，明確應急組織機構、職責分工、回應程序與救援措施，確保快速有效應對。本集團設立專門應急物資庫，儲備消防器材、洩漏控制設備、急救藥品、防護用品等應急物資。

為了檢驗預案可行性，提升員工應急及協作能力，我們定期組織應急演練，事後評估，整改問題，持續提升應急管理水平。公司級綜合應急預案演練每年至少組織1次，廠級專項應急預案演練每半年至少組織1次，廠級調度大班系統（斷水、斷氣、斷汽、斷電）預案演練每月1次，車間級現場處置方案演練每季度至少進行1次，相關演練記錄保存至少3年。

2024年，新鄉基地、新疆瑪納斯基地和江西基地組織的與健康安全相關的各類應急演練次數分別為2,364次、103次、1,042次，三大基地較上年均增加了應急演練頻次。





Case
案例

Hazardous chemicals training and drills
危險化學品培訓與演練

To continuously validate the Group's on-site emergency response capabilities and enhance overall drill effectiveness, Xinjiang XLX conducts quarterly comprehensive emergency drills for major hazardous source leaks of dangerous chemicals.

為持續驗證本集團現場事故應急處置能力，提升整體演練水平，新疆心連心每季度開展危險化學品重大危險源洩漏綜合應急演練。

- **Theme of the training and drills:** Based on the emergency of large-scale liquid ammonia leaks from the B-tank manhole flange in the liquid ammonia storage area
培訓及演練主題：以液氨罐區B球罐人孔法蘭大量液氨洩漏突發事件為背景
- **Frequency:** One comprehensive hazardous chemical-related drill is organised quarterly, with participants receiving centralised training on the drill plan and script, including tabletop drills, on-site rehearsals, and formal drills
培訓及演練頻次：每季度組織1次危險化學品相關的綜合演練，組織參演相關方對演練方案、腳本集中培訓、桌面演練、現場預演、正式演練等
- **Scope of Coverage:** The drills involve senior management and various functional departments, including production, process, environmental protection, equipment, technology, office, maintenance, security, transportation, fire control, medical services, backup rescue, and personnel evacuation
覆蓋範圍：涉及新疆心連心高層及生產、工藝、環保、設備、技術、辦公室、維修、保衛、交通、消防、醫療、後備救援、人員疏散等
- **Participants:** Each drill involves approximately 60 participants, 20 observers, 180 evacuees, and 10 evaluators
參與人數：每次參演人員約60人，觀摩人員約20人，疏散人員約180人，評價人員10人



Safety officers conduct headcounts and confirmation
安全員進行人員統計與確認



Maintenance personnel, equipped with protective gear and specialised tools, address the leak
維修人員穿戴防護用品，攜帶專用工具，對洩漏點進行堵漏



Medical staff provide first aid to injured individuals
醫務人員對受傷人員進行現場急救



General Manager of Xinjiang XLX reviews the drill and provides feedback and recommendations
新疆心連心總經理對演練進行講評並提出問題和指導建議

Case
案例Successful handling of DMF tanker leakage commended by relevant parties
成功處理DMF罐車洩漏事故受相關方表揚

On the morning of 2 October 2024, a tanker transporting DMF products from the Group experienced a sudden leakage on the National Highway G105 in Chaisang District, Jiujiang City. Upon receiving a call from local authorities, Jiangxi XLX immediately dispatched six employees, including the Safety Director, to the scene with emergency supplies. The DMF liquid was safely transferred within two hours. The prompt response effectively controlled the situation, saving the tanker driver over RMB 200,000 in potential losses. The scientific, rapid, and successful handling of this incident demonstrated the Group's capability and responsibility in managing emergencies, earning trust from clients and high recognition from local authorities.

2024年10月2日上午一輛載有心連心集團DMF產品的社會運輸車輛在九江市柴桑區G105過道處突發洩漏事故，江西心連心員工在接到當地政府電話後隨即派出包含安全總監在內的6名員工攜帶應急物資立即趕往事發現場進行援助。歷經兩個多小時的妥當處置，洩露罐車內的DMF液體全部安全轉移。由於處置及時，現場得到有效控制，挽回了罐車司機20余萬元的經濟損失。此次洩露事故的科學、快速、成功處理，充分展現了本集團應對突發事件的能力和擔當，贏得了客戶的信任和當地政府的高度認可。

OCCUPATIONAL HEALTH AND SAFETY

職業健康與安全

Occupational health is a key objective for XLX Group. In compliance with the Law of the PRC on Prevention and Control of Occupational Diseases and other laws and regulations, as well as the "Xin'an" management system, the Group has established comprehensive occupational health and safety regulations. Implementation plans and assessment criteria have been developed to strengthen the management of toxic and hazardous work areas to prevent, control, and eliminate occupational hazards. All these efforts are aimed at safeguarding employee health and safety. Occupational health and safety management working groups are established at each base, with the general manager as the group leader, the deputy general manager as the deputy leader, and department heads as members. The Department of Safety, Environment, and Energy Conservation serves as the daily management body for occupational health and safety.

心連心集團將保障員工職業健康作為重要目標之一，依據《中華人民共和國職業病防治法》等法律法規與「心安」管理體系建立健全職業健康與安全管理規章制度，制定相應的實施計劃和考核標準，加強有毒、有害作業場所的職業病防治管理，預防、控制、消除職業危害，呵護員工健康與安全。本集團各基地成立職業健康安全管理工作組，總經理任組長，副總經理任副組長，各部門負責人為組員，安環節能部為職業健康安全管理的日常管理機構。

Multi-Dimensional Employee Health and Safety Protection 多維度保障員工健康與安全

Risk Identification and Assessment 風險識別與評估

We identify and assess in a systematic way various hazardous factors that may exist in the production process, such as dust, noise, toxic gases, high temperature, radiation, etc. Then we determine the stages where these hazards occur, their concentration or intensity, and the potential impact on employees' health.

對生產過程中可能存在的各類危害因素進行系統識別與評估，如粉塵、噪聲、有毒氣體、高溫、輻射等，確定其產生的環節、濃度或強度以及可能對員工健康造成的影響。

Improvement of Workplace Environment 改善工作環境

We continuously optimise production processes and adopt advanced technology and equipment to reduce or eliminate the generation of hazardous factors. For example, we install efficient dust removal equipment, soundproofing and noise reduction facilities, ventilation systems, etc., to reduce dust concentration, noise intensity, and concentrations of toxic and harmful gas at the production site, and then improve the workplace environment.

不斷優化生產工藝，採用先進的技術和設備，減少或消除危害因素的產生。如通過安裝高效的除塵設備、隔音降噪設施、通風系統等，降低生產現場的粉塵濃度、噪聲強度和有毒有害氣體濃度，改善工作環境。

Provision and Management of Protective Equipment 防護用品配備與管理

We provide employees with comfortable individual protective equipment that meets national standards, such as dust masks, gas masks, earplugs, safety helmets, protective clothing, and protective gloves.

為員工配備符合國家標準且舒適的個體防護用品，如防塵口罩、防毒面具、耳塞、安全帽、防護服、防護手套等。

We regularly hold training sessions for employees to teach them the correct ways to use personal protective equipment, and establish a system for the provision, replacement, maintenance, and inspection of the equipment.

定期組織員工進行個體防護用品的正確佩戴和使用培訓，建立個人防護用品的發放、更換、維護和檢查制度。

Occupational Health Monitoring and Physical Examinations 職業健康監測與體檢

We invite third parties to regularly monitor the concentration or intensity of hazards.

邀請第三方機構定期對危害因素的濃度或強度進行監測。

Moreover, we provide comprehensive physical examinations for staff members before employment, during employment, and upon departure. At the same time, we establish employee occupational health records to track in their health status.

組織員工進行全面的職業健康體檢，包括上崗前、在崗期間和離崗時的體檢等；同時建立員工職業健康監護檔案，跟蹤員工的健康狀況變化。

Performance 績效



In 2024, the Group conducted occupational health examinations for **3,153** employees in hazardous work positions

2024 年，本集團對 **3,153** 名接觸有害作業崗位員工進行職業健康體檢

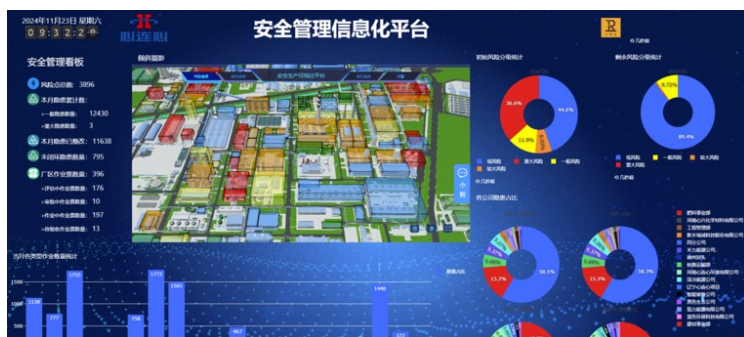
DIGITALISATION OF SAFE PRODUCTION 安全生產數字化

XLX Group continues to advance the informatization and iterative updates of safe production, gradually building an information platform that covers the entire process and all elements of safety management. The introduction of power system inspection robots aims to drive the intelligent transformation of safety management, enabling early detection and handling of potential hazards to ensure production safety and support stable operations. The platform system adopts a three-tier management model, covering the Group level, base level, and subsidiary level. By the end of 2024, the Group had achieved digital transformation in production processes, equipment management, risk assessment and control, safety training and education, and emergency management.

The Group has invested RMB 26 million to build a safety management information platform with 17 scenarios under the "Industrial Internet + Hazardous Chemical Safe Production" initiative, in accordance with the Notice on Issuing the Pilot Construction Plan for "Industrial Internet + Hazardous Chemical Safe Production". By the end of 2024, the platform had completed the deployment and application of one emergency centre smart screen, two client ends (computer web and mobile application), and 12 modules across three bases (with 35 sub-functions). The platform consists of 9 scenarios, including major hazard source management, agile emergency response, risk grading and control, and hidden danger investigation and management. The platform continuously monitors the Group's safety status and risks, providing early warnings and risk assessments to help the Company develop scientific preventive measures. With risk assessment function, it integrates resources and emergency mechanisms. This design enables the platform to enhance rapid response capabilities for emergencies and better manage the storage, transportation, and use of hazardous chemicals. As a result, the incidence of accidents and their impact on safety and production has been reduced.

心連心集團持續推進安全生產信息化建設與更新反覆運算，逐步構建起一個覆蓋安全管理全流程、全要素的信息化平臺，並引入電力系統巡檢機器人，以推動安全管理智能化轉型，實現隱患早發現、早處理，全方位保障生產安全，助力企業穩健運營。平臺系統採取集團公司級、各基地、基地下屬各子公司的三級架構管理模式。截至 2024 年末，本集團已實現生產過程、設備管理、風險評估與管控、安全培訓與教育、應急管理等環節的數字化轉型。

本集團投入 2,600 萬元按《關於印發「工業互聯網 + 危化安全生產」試點建設方案的通知》建設具有「工業互聯網 + 危化安全生產」17 個場景的安全管理信息化平臺。截至 2024 年末，該平臺已完成一個應急中心智慧大屏、兩個用戶端（計算機網頁端和手機 APP 端），以及三大基地的十二個模塊（35 個子功能）的部署與應用，包括重大危險源管理、敏捷應急、風險分級管控和隱患排查治理管理等 9 個場景。該平臺即時監測本集團的安全狀態與風險，及時發現隱患並預警，並具備風險評估功能，助企業制定科學預防措施，整合資源與應急機制，提升突發事件快速回應能力，更好地管理危化品存儲、運輸與使用，降低事故發生率及對安全和生產的影響。



Safety management information platform
安全管理信息化平臺



Personnel positioning safety management platform
人員定位安全管理平臺

SAFETY CULTURE CONSTRUCTION

安全文化建設

XLX Group fosters a strong safety culture through various activities, including safety education and training, safety month events, safety knowledge lectures and competitions, case analysis, safety culture promotion, and visits to outstanding peers for learning and exchanges. These activities enhance employees' safety skills and emergency response capabilities, shifting their mindset from "safety for me" to "safety by me". Hence, a positive environment where everyone participates in and focuses on safety is created. The Group has established a safety reward system to recognise and reward outstanding individuals and teams in safety management, motivating employees and driving the development of safety culture.

Continuous safety education and training are integral to the "Xin'an" management system. Through these efforts, we enhance safety awareness and professional skills for both employees and third parties. In 2024, the Group organised a series of safe production training courses, including safety observation and communication, process safety management, safety instrument systems, safety skills enhancement, and security personnel training, to comprehensively strengthen employees' safety management capabilities.

心連心集團通過開展安全教育培訓、安全月活動、安全知識講座 / 競賽、案例分析、安全文化宣傳、組織到優秀同行參觀交流學習等多種安全建設活動，在企業內部營造濃厚的安全文化氛圍，不斷提升員工安全技能與應急處置能力，讓員工從「要我安全」轉變為「我要安全」，形成全員參與、共同關注安全的良好局面。我們設立安全獎勵制度，表彰獎勵安全管理優秀員工和團隊，激發員工積極性與主動性，推動企業安全文化發展。

持續的安全教育培训是「心安」管理體系的重要組成部分，本集團通過系統的培訓提升員工及第三方的安全意識和專業技能。2024 年度，集團安排了一系列安全生產類培訓課程，包括安全觀察與溝通、過程安全管理、安全儀錶系統、安全技能提升與安全管理績效、提升安全素養與能力和落實主體責任、安保人員治安培訓等，旨在全面加強員工的安全管理能力建設。

Case 案例

External experts conduct chemical process safety training 心連心集團邀請外部專家就化工過程安全開展培訓

The Group invited the Chief Engineer of the China Academy of Safety Science and Technology to conduct a special training on "Chemical Process Safety Management and Safe Production Standardisation" from 28 to 29 April 2024. The training covered multiple aspects, including safety leadership, chemical process safety management concepts and methods, risk management, and change management. Over 260 participants, including the Group's General Manager, divisional vice presidents, company leaders, professional safety managers, and technical personnel, attended the training. This training enhanced the employees' capabilities in chemical safety management and strengthened their safety responsibility and leadership. With this initiative, we also solidified the foundation for sustainable development.

本集團邀請中國安全生產科學研究院總工程師於 2024 年 4 月 28 至 29 日就《化工過程安全管理與安全生產標準化》開展專項培訓。培訓內容涵蓋安全領導力、化工過程安全管理理念與方法、風險管理、變更管理等多個方面。本集團總經理、主管副總、各分子公司負責人、專業安全管理人員以及技術人員等共計 260 餘人參與此次培訓。此次培訓提升了員工化工安全管理能力，強化安全責任與領導力，築牢企業可持續發展根基。

Employee safety training ▶
員工安全培訓



Case
案例

XLX Group and representatives excel in Henan Province's hazardous chemicals enterprise skills competition 心連心集團及代表隊在河南省危化企業技術比武中獲諸多殊榮

The Henan Province Hazardous Chemicals Enterprise Position Training and Skills Competition was held at XLX Group's training centre from 26 to 27 September 2024. Over 160 elite players from 19 representative teams across the province participated in the competition. This competition combined theoretical tests with practical exercises, fully demonstrating the solid professional skills and strong emergency response capabilities of frontline workers and rescue teams in the hazardous chemicals sector.

河南省危險化學品企業崗位練兵技術比武競賽活動於2024年9月26-27日在心連心集團實訓中心舉行，來自全省各地市19組代表隊的160余名精兵強將參加競賽。此次練兵比武採用理論測試與實操比試結合的方式，充分展現了危化領域一線職工、救援隊伍扎實的業務素養和較強的應急處置能力。

XLX Group won the Outstanding Organisation Award, with its representative team from Xinxiang securing first place. Participants also won first prizes in blind flange removal and hot work operations, and a second prize in abnormal condition handling. After the competition, the Group carefully reviewed the experience. We focused on improving and transforming the results of the competition to enhance employees' safety knowledge and emergency response capabilities. By doing so, we have reinforced the safe production line for hazardous chemicals enterprises in the region.

心連心集團榮獲優秀組織獎、本集團代表隊代表新鄉獲一等獎，參賽選手分別榮獲盲板抽堵及動火作業單項一等獎、異常工況處置單項二等獎。賽後，我們認真梳理比武練兵中的經驗做法著力改進提升，進一步推動比武成果轉化，提升從業人員安全知識技能和應急救援處置能力，切實筑牢區域危險化學品企業安全生產防線。



Henan Province hazardous chemical enterprise skills competition
河南省危化企業技術比武活動現場

Protecting the Legitimate Rights and Interests of Employees

保障員工合法權益

Employees are the cornerstone and backbone for us to continuous growth. The Group focuses on four key areas to establish a happy workplace environment: compliance in employment, diverse career opportunities, comprehensive welfare systems, and robust training programmes. All are aimed at fully protecting employee rights and interests.

員工始終是伴隨心連心集團持續成長的重要基石與中堅力量。本集團從堅持合規僱傭、多元的職業機會、完善的福利制度、健全的培訓體系四大方面建立健全員工幸福職場環境，全方位保障員工權力與權益。

COMPLIANCE IN EMPLOYMENT

合規僱傭

Adhering to the principles outlined in the Universal Declaration of Human Rights, XLX Group strictly complies with relevant laws, regulations, and international conventions, including the Labor Law of the PRC, the Labor Contract Law of the PRC, and the Provisions on the Prohibition of Using Child Labor. Additionally, with reference to the Social Accountability 8000 (SA8000), the Group has established and implemented management systems such as the XLX Group Personnel Management System and the XLX Group Labour Discipline and Employee Discipline Management Regulations. Under these guidelines, it treats employees fairly and impartially, regardless of race, color, ethnicity, gender, age, religious belief, or cultural background. The Group strictly prohibits any form of child labour, forbids forced labour or restrictions on employees' freedom through violence, threats, or illegal means, and prohibits any form of corporal punishment, intimidation, harassment, abuse, or discrimination against employees. During the recruitment process, we will carefully review the identity and age range of job applicants, and conduct regular checks through internal file management. At the same time, we clearly define working hours and overtime rules in employee employment contracts to protect employees' rights to rest and vacation.

心連心集團遵循《世界人權宣言》相關規定，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》《禁止使用童工規定》等法律法規及相關國際公約，參考 SA 8000 社會責任標準制定並執行《心連心集團人事管理制度》《心連心集團公司勞動紀律及員工違紀管理規定》等管理制度，公平、公正地對待不同種族、膚色、民族、性別、年齡、宗教信仰和文化背景的員工，嚴禁任何形式的童工僱傭，禁止以暴力、威脅或非法限制人身自由等手段強迫員工勞動、限制員工自由，嚴禁體罰、恐嚇、騷擾、虐待和任何歧視員工的行為。我們在招聘環節會仔細審核求職者身份年齡文件，並通過內部檔案管理定期排查。同時，我們在員工雇傭合約中明確工時與加班規則，保障員工休息休假權益。

The Group strictly abides by national and local policies and regulations and establishes a sound employee rest and vacation system. The Group clearly defines employee holidays as statutory holidays, paid annual leave, family leave, marriage leave, bereavement leave, maternity leave, sick leave, personal leave, etc., fully protecting employees' leave rights and interests. In addition, based on our actual production and operation conditions and the characteristics of employees' positions, we implement the standard working hours system, irregular working hours system and comprehensive working hours system in accordance with regulations, and register them with government departments to effectively protect employees' rest rights and interests.

The Group has established complaint channels, with dedicated departments conducting investigations to supervise and improve the quality of employee management. In 2024, all employees were adults over 18 years old, with no instances of child labour or forced labour. The Group also did not engage in debt labour, human trafficking, or other serious human rights violations.

本集團嚴格遵照國家及屬地政策法規，建立健全員工休息休假制度。本集團明確員工假期包含法定節假日、帶薪年休假、探親假、婚假、喪假、產假、病假、事假等，充分保障員工的休假權益。此外，我們根據自身生產經營實際情況，結合員工崗位特點，按規定實行標準工時制、不定時工時制和綜合計算工時工作制，並到政府部門備案，切實保障員工權益。

本集團設立投訴渠道，由專職部門開展調查，以監督、改進員工管理工作的質量。2024 年，本集團所有僱傭人員均為 18 歲以上成年工，未發生僱傭童工、強迫勞動等情況，且不涉及抵債勞動、勞動力販賣或轉移等嚴重違背人權要求的行為。

Performance 績效

In 2024, the Group 2024 年，本集團



achieved a **100%** labour contract signing rate for employees; and

員工勞動合同簽訂率為 **100%**



achieved **0** incidents of illegal employment

發生違法僱傭事件 **0** 件

DIVERSITY, INCLUSION, AND EQUAL OPPORTUNITIES

多元、包容與平等機會

XLX Group is committed to creating a diverse, inclusive, and equal work environment. We respect employees from different backgrounds and ensure fairness in recruitment, compensation, training, and promotion. The Group prohibits any form of discrimination and non-compliance, and accepts employee complaints. The Group actively recruits employees from diverse backgrounds and skill sets to build a rational and diversified team. By the end of 2024, the Group had 11,787 employees, with an employee turnover rate of 4.4%.

心連心集團致力於營造多元、包容與平等的工作環境，對不同背景和條件的員工給予充分尊重，在招聘、薪酬激勵、培養和晉升等環節確保程序與過程的公平公正，禁止任何形式的歧視與不合規行為，並接受員工投訴。本集團積極招募來自不同背景和技能的員工，構建合理且多元化的團隊，截至 2024 年末，我們共有員工 11,787 名，員工流失率為 4.4%。

Female employees 女性員工

The Group provides fair training and promotion opportunities for female employees, encouraging them to pursue career goals and offering diverse activities and benefits.

我們為女性員工提供公平的培訓和晉升機會，鼓勵女性員工勇敢追求職業生涯目標，並提供多元化的活動及福利。

Retirees rehired 退休返聘

The Group actively rehires experienced and skilled retirees to enrich its diverse talent structure. As of the end of 2024, there were 19 retirees rehired by the Group.

我們積極開展退休返聘工作，歡迎經驗豐富、技術精湛的退休人員重返工作崗位，進一步豐富多元化人才結構，截至2024年末，本集團共有在職退休返聘員工19人。

Veterans 退伍軍人

The Group offers job opportunities for veterans and supports their mental health and career development, helping them integrate into the workplace. As of the end of 2024, there were 700 veterans employed by the Group.

我們為退伍軍人等特殊群體提供就業崗位，同時關注特殊需求員工的身心健康和職業發展，提供必要的支援和幫助，幫助他們快速融入職場，截至2024年末，本集團共有在職退伍軍人700人。

Minority and foreign employees 少數民族與外籍員工

We pay attention to the lives of employees of different ethnicities and races, fully respecting their emotions and cultural habits. As of the end of 2024, there were 283 minority employees and 6 foreign employees employed by the Group.

我們關注不同民族與種族員工的生活，充分尊重其情感及文化習慣，截至2024年末，本集團共有在職少數民族員工283人，共有在職外籍員工6人。

The Group's Employment by Region of Production Bases in 2024

本集團2024年按生產基地區域劃分的僱傭情況

Classification 分類			Henan 河南		Xinjiang 新疆		Jiangxi 江西	
			Numbers 人數	Proportions 所佔比例	Numbers 人數	Proportions 所佔比例	Numbers 人數	Proportions 所佔比例
Staff composi- tion by age 按年齡劃分的 員工構成	Total 總計		8,219	69.73%	1,422	12.06%	2,146	18.21%
	Male 男性	< 30 years old <30歲	2,147	61.91%	462	13.32%	859	24.77%
		30 to 49 years old 30歲~49歲	3,433	71.78%	579	12.11%	771	16.12%
		≥ 50 years old ≥50歲	423	76.22%	80	14.41%	52	9.37%
	Total number of male staff 男性員工合計		6,003	68.17%	1,121	12.73%	1,682	19.10%
	Female 女性	< 30 years old <30歲	640	61.78%	111	10.71%	285	27.51%
		30 to 49 years old 30歲~49歲	1,556	81.08%	185	9.64%	178	9.28%
		≥ 50 years old ≥50歲	20	76.92%	5	19.23%	1	3.85%
	女性員工合計 Total number of female staff		2,216	74.34%	301	10.10%	464	15.57%

Classification 分類			Henan 河南		Xinjiang 新疆		Jiangxi 江西	
			Numbers 人數	Proportions 所佔比例	Numbers 人數	Proportions 所佔比例	Numbers 人數	Proportions 所佔比例
Staff com- position by educational background 按學歷劃分的 員工構成	Junior college or below 大專及以下		4,680	68.08%	873	12.70%	1,321	19.22%
	Undergraduate 本科		2,983	69.36%	526	12.23%	792	18.41%
	Master 碩士		551	90.77%	23	3.79%	33	5.44%
	Doctor 博士		5	100%	0	/	0	/
Staff com- position by position 按崗位劃分的 員工構成	Production 生產		3,598	63.61%	654	11.56%	1,404	24.82%
	Sales 銷售		833	69.77%	132	11.06%	229	19.18%
	R&D technology 研發技術		763	74.95%	94	9.23%	161	15.82%
	Others 其他		3,025	77.19%	542	13.83%	352	8.98%
New re- cruits com- position by gender 按性別劃分的 新員工構成	Male 男性		928	68.89%	137	10.17%	282	20.94%
	Female 女性		332	78.30%	19	4.48%	73	17.22%
Employee turnover by gender and age 按性別和年 齡劃分的員工 流失	Total 總計		338	65.13%	66	12.72%	115	22.16%
	Male 男性	< 30 years old <30歲	189	58.33%	44	13.58%	91	28.09%
		30 to 49 years old 30歲~49歲	80	76.19%	13	12.38%	12	11.43%
		≥ 50 years old ≥50歲	3	100.00%	0	/	0	/
	Total number of male staff 男性員工合計		272	62.96%	57	13.19%	103	23.84%
	Female 女性	< 30 years old <30歲	42	71.19%	6	10.17%	11	18.64%
		30 to 49 years old 30歲~49歲	24	85.71%	3	10.71%	1	3.57%
		≥ 50 years old ≥50歲	0	/	0	/	0	/
	女性員工合計 Total number of female staff		66	75.86%	9	10.34%	12	13.79%

The Group's Employment in 2023-2024
本集團 2023-2024 年員工僱傭情況

Indicator 指標		Unit 單位	2024	2023
Total number of employees 員工總數		Person 人	11,787	10,390
By gender 按性別劃分	Male 男性	Person 人	8,806	7,763
	Female 女性	Person 人	2,981	2,627
By age 按年齡劃分	< 30 years old <30歲	Person 人	4,504	3,436
	30 to 49 years old 30歲~49歲	Person 人	6,702	6,466
	≥ 50 years old ≥50歲	Person 人	581	488
By employment type 按僱傭類型劃分	Full-time 全職	Person 人	11,787	10,390
	Part-time 兼職	Person 人	0	0
By educational background 按學歷劃分	Junior college or below 大專及以下	Person 人	6,873	6,667
	Undergraduate 本科	Person 人	4,301	3,343
	Master 碩士	Person 人	608	375
	Doctor 博士	Person 人	5	5
By employee's grade 按員工職級劃分	Management 管理層	Person 人	882	993
	Middle management 中層員工	Person 人	3,776	3,282
	General staff 普通員工	Person 人	7,129	6,115
By position 按崗位劃分	Production positions 生產崗位	Person 人	5,656	5,644
	Sales positions 銷售崗位	Person 人	1,194	982
	R&D technology positions 研發技術崗位	Person 人	1,018	747
	Other positions 其他崗位	Person 人	3,919	3,017

Indicator 指標		Unit 單位	2024	2023
By region 按地區劃分	China 中國	Person 人	11,780	10,387
	Other countries or regions 其他國家或地區	Person 人	7	3
New recruits 新招聘員工	Male 男性	Person 人	1,347	1,100
	Female 女性	Person 人	424	292
Employee turnover 員工流失	Number of employee turnover 員工流失人數	Person 人	519	350
	Employee turnover by gender - male 員工流失按性別劃分-男性	Person 人	432	277
	Employee turnover by gender - female 員工流失按性別劃分-女性	Person 人	87	73
	Employee turnover by age - < 30 years old 員工流失按年齡劃分-<30歲	Person 人	383	243
	Employee turnover by age - 30 to 49 years old 員工流失按年齡劃分-30歲~49歲	Person 人	133	103
	Employee turnover by age - ≥ 50 years old 員工流失按年齡劃分-≥50歲	Person 人	3	4
	Employee turnover by region - China 員工流失按地區劃分-中國	Person 人	519	350
	Employee turnover by region - other countries or regions 員工流失按地區劃分-其他國家或地區	Person 人	0	0
	Employee turnover rate 員工流失率	%	4.4	3.4
	Employee turnover rate by gender - male 員工流失率按性別劃分-男性	%	83.2	79.1
	Employee turnover rate by gender - female 員工流失率按性別劃分-女性	%	16.8	20.9
	Employee turnover rate by age - < 30 years old 員工流失率按年齡劃分-<30歲	%	73.8	69.4
	Employee turnover rate by age - 30 to 49 years old 員工流失率按年齡劃分-30歲~49歲	%	25.6	29.4
	Employee turnover rate by age - ≥ 50 years old 員工流失率按年齡劃分-≥50歲	%	0.6	1.1
	Employee turnover rate by region - China 員工流失率按地區劃分-中國	%	100	100
	Employee turnover rate by region - other countries or regions 員工流失率按地區劃分-其他國家或地區	%	0	0

Case
案例

"Blooming Youth, Embracing Spring" Women's Day celebration 「花漾芳華，不負春光」女神節活動

To celebrate this special festival dedicated to women, the Group's Trade Union distributed festival gifts to all female employees. At the same time, sub-unions at all levels carried out a variety of consolation activities, including gift-giving, fun competitions, health lectures, flower-arranging salons, group movie screenings, and strawberry picking. Through a series of diverse and colorful activities, we comprehensively enhanced the sense of belonging and happiness of female employees, showing them full respect and care.

為慶祝專屬於女性的特殊節日，本集團工會向全體在職女員工發放節日禮品。各級分工會同步開展送禮物、趣味比賽、健康講座、插花沙龍、集體觀影、草莓採摘等形式多樣的慰問活動。通過一系列豐富多彩的活動，我們全方位提升女員工的歸屬感與幸福感，對女性員工給予充分的尊重與關懷。



XLX Group's Women's Day activity
心連心集團女神節活動

EMPLOYEE COMPENSATION AND BENEFITS

員工薪資與福利

XLX Group adheres to the principles of openness, fairness, transparency, and equal pay for equal work. We uphold the compensation management philosophy of “determining levels based on positions, grades based on abilities, salaries based on performance, and adjusting salaries based on position changes”. This approach has established a compensation management mechanism closely linked to individual contributions, Group performance, and development strategy. It ensures that compensation matches employee contributions and performance, fully motivating their work enthusiasm.

心連心集團堅持公開、公正、透明、同工同酬的原則，秉持「以崗定等、以能定級、以績定薪、易崗易薪」的薪酬管理理念，構建了員工收入與個人貢獻、本集團業績及發展戰略緊密相連的薪酬管理機制，以確保薪酬與員工的貢獻和績效相匹配，充分激發員工工作熱情。

Five Basic Principles of Compensation Management

薪酬管理遵循五大基本原則



XLX Group's Compensation Model and Structure
心連心集團薪酬模式與結構

模式 Mode	職位 / 崗級工資 Position/grade salary	能效工資 Performance-based salary	提成工資 Commission salary	計件工資 Piece rate	津貼和 Allowances and subsidies	特別獎 Special award ²⁷	年終效績獎 Year-end profit-sharing bonus	項目獎金 Project bonus	中長期激勵 ²⁸ Medium- and long-term incentives ²⁸	福利 Benefits	協議約定 Contractual agreements
結構 Structure											
Position-based performance system 崗位能效制	✓	✓			✓	✓	✓		✓	✓	
Project-based system 項目制	✓	✓			✓	✓	✓	✓	✓	✓	
Commission-based system 提成制	✓		✓		✓	✓			✓	✓	
Piece-rate system 計件制	✓			✓	✓	✓	✓		✓	✓	
Agreement system 協議制											✓

Our benefits cover all aspects of employees' lives, continuously improving the benefit system to meet diverse needs. We provide statutory benefits such as social insurance, housing provident fund, and national holidays. In addition, we also offer company-wide benefits including supplementary medical insurance for major medical expenses, accidental injury insurance, heating and cooling allowances, holiday benefits, birthday benefits, meal subsidies, shuttle buses, health check-ups, and special benefits for female employees (including sanitary fees). These measures enhance employee care and improve their sense of happiness and belonging. Additionally, we focus on optimizing the comfort of office areas to create a more pleasant and humane workplace.

本集團福利覆蓋員工生活各方面，持續完善福利體系，滿足多元需求。我們為員工提供五險一金、國家節假日等法定福利的同時，還提供包括大額醫療費補充保險、意外保險、取暖降溫費、節假日福利、生日福利、工作餐補貼、通勤班車、健康體檢、女工福利（含衛生費）等常態化公司福利，增強員工關懷，提升幸福感與歸屬感。同時，我們著力優化辦公區域舒適度，打造更愉悅、人性化的工作環境。

²⁷Special Awards include: "Annual Excellence" Awards, Management Innovation and QC Activity Awards, Science and Technology Innovation Awards, and Safety Risk Fund. These awards recognise outstanding performance by teams or individuals in specific initiatives.

²⁷ 單項獎有「年度評優評先」表彰、管理創新與 QC 活動獎、科學技術創新獎、安全風險金等，是對各類專項活動中業績突出的組織和個人進行的專項獎勵。

²⁸Medium- and Long-Term Incentives refer to compensation incentive methods implemented by the Group to attract, retain, and motivate key talents. These measures are based on the Group's medium- and long-term development strategies and closely linked to its medium- and long-term business performance. The incentives include equity incentives for listed companies, Time-based Unit Plan (TUP), and project profit-sharing schemes, etc. For more details about the employee stock ownership plan, please refer to the China XLX 2024 Annual Report.

²⁸ 中長期激勵是指公司為吸引、保留、激勵核心人才實施的與公司中長期發展戰略相結合、與中長期經營業績緊密掛鉤的薪酬激勵方式，包括上市公司股權激勵、獎勵期權計劃（TUP）、項目收益分紅等。員工持股計劃相關內容，請參閱中國心連心化肥 2024 年年度報告。

Building a Diverse Benefit System to Help Employees Balance Work and Life 構建多元福利體系，助力員工平衡工作與生活



On 20 May 2024, XLX Group held its 18th Staff Fun Sports Meeting, which included long-distance running, tug-of-war, fun sports, skipping rope, and relay races. Over 2,524 employees participated.

心連心集團於2024年5月20日舉行第十八屆職工趣味運動會，涵蓋了長跑、拔河、趣味運動、跳大繩和接力賽等多個項目，吸引了2,524名員工參與。

Performance 績效

In 2024, the Group achieved 2024 年, 本集團



100% coverage rate for employees' social insurance and housing provident fund

員工五險一金覆蓋率為 100%



100% coverage rate for group commercial accidental insurance and supplementary medical insurance

團體商業意外險及醫療補充保險覆蓋率為 100%



100% coverage rate for employee physical examination

員工體檢覆蓋率為 100%



Case
案例

XLX Group held the 7th Employees' Children Scholarship Award Ceremony
心連心集團舉行第七屆員工子女獎學金頒獎典禮

On 27 August 2024, XLX Group held the 7th Employees' Children Scholarship Award Ceremony to congratulate the students on their successful college admissions. Over 160 people attended, including representatives from the Xinxiang County Federation of Trade Unions, senior management of XLX Group, award-winning students, and their parents. The students who received scholarships were appointed as "XLX Campus Ambassadors". They would act as our brand ambassadors in universities, helping to promote our corporate culture and building bridges for university-enterprise co-operation.

心連心集團於 2024 年 8 月 27 日舉辦第七屆員工子女獎學金頒獎典禮，祝賀其金榜題名。160 餘人出席，包括新鄉縣總工會等多部門代表、心連心集團高層、獲獎學生及家長。本次獲獎學金的同學們受聘為「心連心校園大使」，是我們在各高校的形象代言人，協助本集團推廣企業文化，搭建校企合作橋樑。



Award Ceremony for the college admissions success of the XLX Group's employees' children
金榜題名，燃夢「心」少年頒獎典禮



XLX Group's "Campus Ambassador" appointment ceremony
心連心集團「校園大使」聘任儀式

EMPLOYEE CARE

員工關愛

The Trade Union of XLX Group is a strong defender of employees' legal rights and interests. It organises skill training and cultural and sports activities, promotes democratic management within the enterprise, and builds harmonious labour relations. The union has 14 sub-unions, 6 organisations (Photography Association, Karaoke Association, Basketball Association, Table Tennis Association, Badminton Association, Cycling Association), and 2 management committees (Staff Life Committee, XLX Kindergarten Management Committee). The Group holds a staff representative assembly once a year, covering topics such as major corporate decisions, significant reforms, regulations, use of benefit funds, and democratic evaluation of leading cadres.

心連心集團工會是員工合法權益的堅實維護者，組織開展技能培訓、文體活動，促進企業民主管理，構建和諧勞動關係。工會下設 14 個分工會、6 個群眾性社團（攝影協會、卡拉 OK 協會、籃球協會、乒乓球協會、羽毛球協會、騎行協會）和 2 個管理委員會（職工生活委員會、心連心幼稚園管理委員會）。本集團每年組織 1 次職工代表大會，會議內容包含但不限於企業重大決策、重大改革事項、規章制度、生活福利費使用、民主評議領導幹部等。



On 23 February 2024, XLX Group held its 11th Session of the 6th Trade Union Member Representative and Staff Representative Assembly at Xinxiang Base. Senior management of the Group, heads of functional service platforms, business units, and subsidiaries, as well as over 300 member representatives and staff representatives, attended the meeting. The Xinjiang and Jiangxi Bases participated online simultaneously.

心連心集團於 2024 年 2 月 23 日在新鄉基地召開第十一屆六次工會會員代表暨職工代表大會，本集團高層、各職能服務平臺、事業部、子公司主要管理幹部及 300 余名會員代表、職工代表參加會議，新疆基地與江西基地線上同步參會。



XLX Group implements the corporate philosophy of "people-oriented and caring for employees" by formulating and effectively executing the XLX Company Employee Care Activity Management Measures to comprehensively focus on the physical and mental health of its employees. The Group implements comprehensive employee care and support through various initiatives. It maintains communication with key personnel who have left the Company, organises hospital visits for employees and their immediate family members, and assists non-local employees with wedding preparations. Furthermore, the Company hosts open day for university students' families and provides support to families of employees in need. Additionally, we conduct seminars on workplace stress and coping strategies. Guided by the principle of "voluntary contributions and mutual assistance," the Group's Trade Union established an Employee Medical Mutual Aid Fund to help employees suffering from major illnesses alleviate financial difficulties caused by medical expenses. In 2024, the Group organised activities such as the presentation of retirement commemorative medals, return visits for retired employees, replacement of social security cards for retirees, and campus tours for employees' children.

心連心集團貫徹執行「以人為本、關愛員工」的企業理念，制定並落地執行《心連心公司關愛員工活動管理辦法》，全方位關注在崗及全體員工的身心健康。本集團通過對離職關鍵崗位人員保持溝通、舉辦大學生家屬開放日活動、組織員工及其直系親屬住院探望、助力非本地員工婚事籌備、為困難員工家庭提供幫扶、組織職場壓力與應對策略的專題講座等方式，全方位落實員工關懷與幫扶。本著「自願出資，共用互助」的原則，本集團工會成立員工醫療互助基金會，幫助患大病員工減輕因病造成的經濟困難。2024年，我們舉辦了退休紀念章頒發、退休職工返廠、退休職工社保卡更換、員工子女參訪園區等活動。



XLX Group's 2024 "Honourable Retirement Commemorative Medal" awarding ceremony and relevant activities
心連心集團舉行2024年度退休職工「光榮退休紀念章」頒發儀式及系列活動





Case 案例

XLX Group organised the "XLX Tour" activity for newly hired remote graduates' families 心連心集團組織開展異地校招生親屬「連心行」關懷活動

To enhance the sense of belonging among newly hired remote graduates, XLX Group organised the "XLX Tour" activity for the families of these graduates in November 2024. A total of 81 graduates and their families participated. Participants visited the corporate culture exhibition hall and the factory premises, followed by a discussion at the Nitrogen Fertiliser Research Centre, and then the group toured the Southern Taihang Mountains. This activity allowed the families to gain a deep understanding of the Group's development history, business content, corporate culture, and talent policies.



Hosting open day for graduates' families
舉行大學生家屬開放日系列活動

為增強異地校招生員工歸屬感，心連心集團於2024年11月組織開展異地校招生親屬「連心行」關懷活動，81名校招生及其家屬參與。大家首先參觀了企業文化展廳和廠區，隨後在氮肥研究中心座談。並組織眾人暢遊南太行。此次活動讓家屬們深入了解本集團的發展歷程、業務內容、企業文化和對人才的政策關懷。



EMPLOYEE COMMUNICATION AND FEEDBACK

員工溝通與反饋

XLX Group respects employees' rights to freely assemble and form associations. Through equal negotiation and relevant management methods, the Group encourages employee participation in democratic management and supervision. To enhance employee satisfaction with the Group's working environment, compensation and benefits, career development, management, and corporate culture, the Group continuously collects employee opinions and suggestions through surveys, focus group discussions, and interviews. These insights serve as the basis for formulating improvement measures and decision-making. During the implementation of improvement measures, we maintain ongoing communication with employees. Based on their feedback, we adjust and optimise our approaches to enhance trust and identification with the Group.

心連心集團尊重員工依法自由集會與自由結社的權利，並借助平等協商相關管理辦法，鼓勵員工參與民主管理和民主監督。為提升員工對本集團工作環境、薪酬福利、職業發展、工作環境、管理水平、企業文化等方面的滿意度，本集團通過問卷調研、座談會、訪談等方式持續收集員工的意見和建議，為制定改進措施與決策提供依據。在改進措施實施中，我們持續與員工溝通，根據其評價與反饋持續調整與優化，增強員工對本集團的信任與認同感。

Supporting Employee Growth

助力員工成長

XLX Group is committed to talent investment, focusing on attracting and retaining talent, ensuring smooth career development pathways, and continuously optimizing the employee training system. We aim to build a learning-oriented organisational culture and provide a broad platform for employee growth and development.

心連心集團致力於人才投資，重視人才吸引與留存，著力暢通職業發展通道，持續優化員工培訓體系，建設完善的績效激勵機制，創造學習型組織文化，為員工成長與發展提供廣闊平臺。

TALENT INTRODUCTION

人才引進

XLX Group is committed to improving its recruitment system by formulating management measures such as the External Recruitment Management Measures, the High-Quality Talent Introduction and Retention Management Plan, and the Evaluation Methods for the Suitability, Transfer, and Regularisation of XLX Company's Employees. These measures clarify principles and responsibilities, continuously optimise the talent introduction process, strengthen retention mechanisms, encourage employee referrals of outstanding talents, and support employee transfer and development. In addition to conducting recruitment needs assessments every six months, the Group finalises project-based recruitment plans at the beginning of the year and tracks and evaluates them mid-year. This approach ensures precise talent matching and supports the Group's strategic goals.

The Group reaches out to universities through "long-term" campus recruitment, collaborating with institutions such as Xi'an Jiaotong University and Henan University to explore corporate-university cooperation models and jointly develop talent pipelines. In 2024, we also organised open days for local high school students and corporate-university exchange activities, with over 3,500 participants. These initiatives expanded talent acquisition channels and infused fresh energy into the Group's development. In 2024, the Group welcomed 1,771 new recruits, including 838 fresh graduates.

心連心集團致力於完善招聘體系，制定《外部招聘管理辦法》《高素質人才引進留用管理方案》《心連心公司員工適用、轉崗轉正評價辦法》等管理辦法，明確原則與職責，持續優化人才引進流程，強化留用機制，鼓勵員工內推優秀人才，支持並助力員工轉崗發展。此外，我們每半年進行一次招聘需求盤點，年初確定項目抽調與招聘計劃，年中跟蹤評估，精準匹配人才需求，推動本集團戰略目標實現。

本集團深入校園前端，實施「長線」校招，與西安交通大學、河南大學等高校開展聯合探索校企合作模式，共同培養並打通優秀人才輸送通道。2024年，我們還組織了周邊高中生開放日及對口院校校企交流活動，參與人數達3,500餘人，全方位拓展人才引進渠道，為本集團發展注入新鮮血液。2024年，本集團新進員工共1,771人，其中新招應屆畢業生838人。



Henan XLX received the "2024 Global Outstanding HR Team of the Year" Award
河南心連心獲「2024環球年度傑出HR團隊」榮譽稱號

Case 案例

XLX Group explores the corporate-university cooperation model 心連心集團與高校聯合探索校企合作模式

To build a precise corporate-university docking platform and deepen the integration of education, talent, and industry chains, the Group organised visits by faculty and students from Xi'an Jiaotong University and Henan University in late August 2024. Through these activities, both parties clarified their needs and established channels for campus recruitment and technical talent delivery.

為搭建校企精準對接平臺，推進教育鏈、人才鏈、產業鏈深度融合，本集團於2024年8月中下旬組織開展了西安交通大學、河南大學師生一行參觀交流參訪活動。通過此次活動，雙方明確了需求，打通校園招聘與技術人才輸送通道。



Universities' faculty and students visited the XLX Group's campus
高校參訪心連心園區

Moving forward, the Group will continue to expand strategic partnerships with universities, using technical cooperation projects as a driving force to achieve shared talent resource information and complementary advantages. This will gradually deepen the breadth and depth of "industry-academia-research" cooperation and lay a solid talent foundation for the Group's high-quality development.

未來，本集團將持續拓展戰略合作院校，以技術合作項目為驅動力，促進雙方實現人才資源信息共用和優勢互補，逐步深化「產、學、研」合作廣度和深度，為支撐本集團高質量發展奠定堅實的人才基礎。



TALENT CULTIVATION 人才培養

XLX Group, upholding the corporate spirit of dedication, continuous learning, and professional commitment, has established and continuously optimised its employee training system. The Group focuses on building a strong faculty, enriching teaching resources, and leveraging digital empowerment to meet the diverse developmental needs of employees. It actively expands talent cultivation models, including internal mentoring, external expert teaching, and university-enterprise cooperation.

心連心集團弘揚篤信好學、執事敬業的企業精神，建立並持續優化員工培訓體系，重視師資隊伍建設、教學資源豐富與數字化賦能，優化反覆運算培訓計劃，積極拓展內部講師、外部專家教學、校企合作等人才培養模式，以滿足員工成長發展中的多樣化需求。

Faculty and training programmes 師資隊伍	Evaluation and appointment criteria 評聘標準	Composition 組成	Responsibilities 職責	Number of team members as of the end of 2024 截至 2024 年末的隊伍人數
Expert team 專家隊伍	Comprising senior engineers, technicians, and vocational training experts with extensive experience and academic or technical achievements 德藝雙馨，深耕一線專業技術多年、高級工程師或高級技師級別，具有學術研究成果、技術創新成果等	Composed of technical experts from the chemical industry, experienced frontline technicians, corporate practice experts, and vocational training institution assessors 由化工行業內技術專家、深入一線多年的技術工人、企業實踐專家、職業技能培訓機構認定專家組成	Responsible for the operation and management of the training base. Provide guidance and audit for curriculum development, question bank compilation, training guidance, technology optimisation and innovation 主要負責實訓基地的運行管理、課程開發、題庫編制、訓練指導、技術優化和創新等提供指導和審核	37
Lecturer team 講師隊伍		Composed of frontline managers, engineers, and skilled technicians within the Group 由本集團內部一線管理人員、工程師級別技術人員及技師等級技能人員組成	Responsible for course development, question bank compilation, theoretical and practical teaching, and organizing assessments and evaluations 主要負責課程開發、題庫編制、組織理論及實操授課、組織考核評價等	329

In 2024, the Group conducted various training sessions at its training centre, with a cumulative participation of 21,000 (including external personnel). These included 811 participants in certification training for chemical employees, 334 participants in certification training for other types of work, 338 participants in pre-job training for new front-line production employees, 5,605 participants in centralised safety special training, 7,020 participants in special training, and 7,240 participants in competition examinations.

By the end of 2024, the Group established joint programmes with three universities: Henan Chemical Technician Institute (Kaifeng School-Enterprise Cooperation, (SEC)), Jiangxi Chemical Industry Senior Technical School (Jiangxi SEC), and Guangxi Industrial Vocational Technical College (Guangxi SEC). The Kaifeng and Jiangxi SEC have cumulatively supplied over 1,000 employees, with 111 graduates in 2024.

2024 年，本集團在實訓中心舉行了各項培訓，累計參與人數達 2.1 萬人（含外部人員），化工崗位員工取證培訓參與人數 811 人、其他工種取證培訓參與人數 334 人、一線生產新員工崗前實訓參與人數 338 人、集中安全專項培訓參與人數 5,605 人、專項培訓參與人數 7,020 人、競賽考試參與人數 7,240 人。

截至 2024 年末，本集團聯合高校辦學 3 所，分別為河南化工技師學院（開封聯辦班）、江西省化學工業高級技工學校（江西聯辦班）、廣西工業職業技術學院（廣西聯辦班），開對聯辦班、江西聯辦班累計輸送員工達 1,000 餘人，2024 年共計畢業 111 人。

Major honours



主要榮譽

-  The Group's XLX Leadership Talent Development Programme was honoured with the Best Learning Programme at the 20th China Corporate Training in 2024
心連心集團「心領軍」人才培養計劃獲 2024（第二十屆）中國企業培訓最佳學習項目
-  Henan XLX was awarded the 2024 (14th) Best Practice Award of China Human Resources Management Institute by the Business School of Renmin University of China
河南心連心榮獲人大商學院頒發的 2024（第 14 屆）中國人力資源管理學院最佳實踐獎
-  Henan XLX was recognised as a 2024 High-Growth Enterprise Learning Platform by Shanghai Jiao Tong University Education Group
河南心連心被上海交大教育集團授予 2024 高成長性企業學習平臺

Indicators Related to Employee Training of the Group
本集團員工培訓相關指標

Indicator 指標		Unit 單位	2024	2023
總受訓人數 Total number of trainees		Person 人	11,787	10,390
Number of trainees by gender 按性別劃分受訓人	Male 男性	Person 人	8,767	8,204
	Female 女性	Person 人	3,020	2,186
Percentage of trainees by gender 按性別劃分受訓百分比	Male 男性	%	100	100
	Female 女性	%	100	100
Number of trainees by rank 按層級劃分受訓人數	Management 管理層	Person 人	77	69
	Middle management 中層員工	Person 人	102	97
	General staff 普通員工	Person 人	11,608	10,224
Percentage of trainees by rank 按層級劃分受訓百分比	Management 管理層	%	100	100
	Middle management 中層員工	%	100	100
	General staff 普通員工	%	100	100

Indicator 指標		Unit 單位	2024	2023
Number of trainees by position 按崗位劃分受訓人數	Production 生產	Person 人	6,902	6,189
	Sales 銷售	Person 人	1,231	998
	R&D technology 研發技術	Person 人	1,044	987
	Others 其他	Person 人	2,610	2,216
Percentage of trainees by position 按崗位劃分受訓百分比	Production 生產	%	100	100
	Sales 銷售	%	100	100
	R&D technology 研發技術	%	100	100
	Others 其他	%	100	100
Total training hours 總受訓時數		Hour 小時	91,220	87,988
Total training hours by gender 按性別劃分受訓總時數	Male 男性	Hour 小時	76,120	71,163
	Female 女性	Hour 小時	15,100	16,825
Total training hours by rank 按職級劃分受訓總時數	Management 管理層	Hour 小時	2,510	1,997
	Middle management 中層員工	Hour 小時	4,800	4,042
	General staff 普通員工	Hour 小時	83,910	81,949
Total training hours by position 按崗位劃分受訓總時數	Production 生產	Hour 小時	75,216	71,104
	Sales 銷售	Hour 小時	3,993	3,523
	R&D technology 研發技術	Hour 小時	4,176	3,990
	Others 其他	Hour 小時	7,835	9,371

Indicator 指標		Unit 單位	2024	2023
Average training hours 平均受訓時數		Hours/Person 小時/人	7.7	8.5
Total training hours by gender 按性別劃分受訓總時數	Male 男性	Hours/Person 小時/人	8.6	9.2
	Female 女性	Hours/Person 小時/人	5.1	6.4
Total training hours by rank 按職級劃分受訓總時數	Management 管理層	Hours/Person 小時/人	7.2	6.9
	Middle management 中層員工	Hours/Person 小時/人	10.9	9.8
	General staff 普通員工	Hours/Person 小時/人	3.2	3.0
	Production 生產	Hours/Person 小時/人	4.0	3.8
Total training hours by position 按崗位劃分受訓總時數	Sales 銷售	Hours/Person 小時/人	3.0	3.0
	R&D technology 研發技術	Hours/Person 小時/人	8.7	8.5
	Others 其他	Hours/Person 小時/人	5.0	5.0

TRAINING FOR NEW RECRUITS
新進員工培訓

The Group provides specialised training for new employees. For fresh graduates, the Group has developed the XLX Company's Management Measures for Fresh Graduates Training and the Xinmiao and Xinxing 2024 Training Plans for College Graduates, establishing a "three-year mentorship" model focused on job-specific training for college graduates. The first year focuses on general training under the "Xinmiao" programme, while the second and third years involve advanced training under the "Xinxing" programme. After one year of "Xinmiao" training, evaluations and selections are conducted to identify outstanding high-potential university students for advanced training in the "Xinxing" talent pool. Additionally, to help fresh university employees feel cared for, enhance their sense of belonging, and clarify their career development plans, the Group's General Manager delivered a special lecture on career planning to over 1,000 graduates, both online and offline.

本集團為新進員工提供專項培訓，針對新進大學生制定《心連心公司新進大學生培養管理辦法》《心苗、心星 2024 年大學生培養方案》，建立以崗位培養為主的大學生「三年陪跑」模式。第一年為「心苗」通用培養，第二至三年為「心星」進階培養，「心苗」培養滿一年進行評價、選拔，挑選優秀高潛大學生進入「心星」人才池進階培養。此外，為讓新進大學生感受本集團關懷，增強歸屬感，明確發展規劃，打造高素質人才隊伍，心連心集團總經理面向超 1,000 名線上線下新進大學生，就職業規劃等內容開展專題授課。

Case 案例

“Mentoring and Apprenticeship” and “Senior Management Coaching” programmes familiarise new employees with the workplace 「師帶徒」及「高層帶教」助力新進員工熟悉職場

The Group has formulated the Management Regulations on the “Mentoring and Apprenticeship” Programme for New Recruits and the XLX Company’s Middle and Senior Management Coaching Programme for College Graduates to help new recruits quickly enhance their practical skills and strengthen their sense of belonging and mission. After a new recruit’s mentor is determined, the mentorship goals and content are clearly defined. These include basic job knowledge and skills, the transmission of work experience, team management, and positive mindset guidance, specified as follows:

本集團制定《新員工「師帶徒」管理規定》《心連心公司中高層大學生帶教方案》，幫助新進員工快速提升實踐操作技能，增強其歸屬感與使命感。新員工師傅確定後，需明確徒弟培養目標與內容，涵蓋崗位基本知識技能，以及工作經驗傳承、團隊管理和心態引導，具體如下：

- Knowledge and skills: Job-related knowledge, professional skills, as well as safety, and environmental protection

知識技能類：崗位業務知識、專業技能、安全環保

- Team management: Management knowledge and general skills

團隊管理類：管理知識和通用技能

- Business experience: personal insights and experience on job business, experience of personal career development

業務經驗類：對崗位業務的個人感悟和經驗，個人職業發展的經驗和體會

- Mindset guidance: Cultivate a positive mindset for happy work and life, along with other content related to new recruits’ work, life, and mental well-being

心態引導類：使新員工擁有快樂工作、開心生活的積極心態，其他與新員工工作、生活、身心健康相關的內容



Mentorship ceremony for new employees, including the “Mentoring and Apprenticeship” and “Senior Management Coaching” programmes

新進員工「師帶徒」及「高層帶教」拜師儀式

EMPLOYEE CONTINUOUS DEVELOPMENT

員工持續培養

The Group offers diverse training opportunities, including the “XLX Leadership Talent Development Programme”, aimed at cultivating future leaders and core talents. The Group provides a wide range of external training opportunities, including degree and non-degree education. These cover graduate studies (Masters and PhD), EMBA, MBA programmes, specialised training classes, overseas study tours, university partnerships, short-term external training, and certification courses. For those who meet the selection conditions for academic education and are filed, the tuition fees, book fees, travel expenses, and board and lodging fees for the academic year can be reimbursed based on internal regulations.

本集團多措並舉，積極開展包括「心領軍人才培養計劃」在內的幹部培訓，旨在以各單位經營管理一把手為培養方向，培育出一批複合型後備核心人才。本集團為員工提供多元外出培訓機會，分學歷與非學歷教育，涵蓋碩博研究生、EMBA、MBA、專業研修班、出國遊學、高校聯辦班、短期外訓、取證培訓等。符合學歷教育選拔條件並備案的，學年學費、書費、差旅、食宿費等均可按內部規程報銷。

2024 XLX Group Talent Development Programmes
2024 年心連心集團人才培養項目

Category 類別	Programme name 項目名稱	Programme objective 項目目標	Personnel scope 人員範圍	Training methods 培養方式
Cadres training 幹部培訓	XLX Leadership Talent Development Programme 心領軍人才培養計劃	Targeting the management personnel of each unit, cultivate a group of compound reserve core talents 以各單位經營管理者為目標，培育一批複合型後備核心人才	Management level and its reserve 經營層及其後備	EMBA teaching model EMBA教學模式
	Condensed EMBA 濃縮EMBA	Improve management mindset 提升經營思維	Execution level 執行層 Operation level 運營層	Face-to-face teaching 面授
	Domestic visits 國內參訪	Improve vision and open up thinking 提升視野、開拓思維	Management level 經營層 Strategic level 戰略層	Visit + exchange 參觀+交流
	Study abroad 國外遊學	Improve vision and open up thinking 提升視野、開拓思維	Management level 經營層 Strategic level 戰略層	Study 研學
	New cadre certification 新任幹部認證	Build a curriculum system (2.0) for cadre competency qualification 構建幹部勝任力任職資格2.0課程體系	Four-level cadres 四層級幹部	Online class 線上課
Business- sempowerment 業務賦能	Sales theater director boot camp 戰區總監訓練營	Based on the standards of Sales theater directors, cultivate compound Sales theater directors and reserve talents 按戰區總監任職標準，培育複合型戰區總監及後備人才	Current Sales theater directors, sub-Sales theater managers, and excellent dealers 現任戰區總監、分戰區經理、優秀經銷商	Face-to-face teaching + visits + re-search projects 面授+參訪+課題研究
	Workshop director boot camp 車間主任訓練營	Improve the comprehensive management capacities of existing cadres and reserve talents for project development 提升現有幹部綜合管理水平，為項目建設儲備人才	Current workshop directors, section chiefs, department managers/ deputy managers/supervisors 現任車間主任、工段長、部門經理/副經理/主管	Face-to-face teaching + coaching 面授+輔導
	XinjiangXLX Xinqi Training 新疆心旗培養	Cultivate a reserve cadre team with excellent comprehensive quality and strong ability 培育綜合素質好、能力強的後備幹部梯隊	Supervisors, section chiefs, department deputy managers 主管、工段長、部門副經理	Face-to-face teaching + coaching 面授+輔導
	Intelligent Equipment Spark Prairie Fire Training 智能裝備星火燎原培養	Improve the management skills of current cadres and consolidate the construction of cadre echelons 提升現任幹部管理技能，夯實幹部梯隊建設	Department managers/deputy managers, Deputy General Manager, and General Manager 部門副經理/經理、副總經理、總經理	Face-to-face teaching + coaching 面授+輔導

Category 類別	Programme name 項目名稱	Programme objective 項目目標	Personnel scope 人員範圍	Training methods 培養方式
Business consulting 業務諮詢	Core reserve project of production system 生產系統核心後備項目	Cultivate a group of core reserve talents of deputy general manager of production system of large base 培養一批大基地生產系統副總經理核心後備人才	High potential talents 高潛人才	Face-to-face teaching + training + visits + project experience + research projects + tutor guidance 面授+研修+參訪+項目歷練+課題研究+導師帶教
	Xinjiang Marketing Learning Map Project 新疆營銷學習地圖項目	Quickly cultivate and replicate core talents to meet the talent needs of new projects 快速培養、複製核心人才，滿足新項目人才需求	Business personnel, sub-sales-theatre managers, and agricultural chemical personnel 業務人員、分戰區經理、農化人員	Consulting + coaching 諮詢+輔導
Skilled talents 技能人才	New recruits' certification 新員工取證	Accelerate the transition of new recruits from students to corporate workers 加快新員工從學生向企業人轉變	New recruits 新進員工	
	On-the-job personnel certification 在崗人員取證	Transform from skilled talents to high-skilled talents 實現技能人才向高技能人才轉變	On-the-job employees 在崗員工	Face-to-face teaching + practical operation 面授+實操
	Specialized safety training 安全專項輪訓	Improve the safety emergency response capabilities of all employees 提升全體員工的安全應急能力	All employees 全員	



In the XLX Leadership Talent Development Programme jointly conducted with Peking University, participants are organised to visit domestic and international benchmark companies in batches. By the end of 2024, the Group had organised 3 site visits, 2 learning sessions at major project construction sites, and 6 sharing sessions on excellent management practices.

北京大學「心領軍」人才培養計劃，組織學員分批次進行國內外優秀標杆企業遊學，截至2024年末，我們共組織參訪活動3次、大項目建設現場學習2次、優秀管理經驗分享6次。

Case
案例

XLX Group's training base empowers itself and industry development 心連心集團實訓基地賦能自身及行業發展

In order to meet the strategic talent needs of the Group, combined with the relevant requirements of the State Council and the Ministry of Emergency Management, XLX Group began to plan and build a training base in May 2022. Additionally, it completed the XLX Training Centre and XLX Vocational Skills Level Certification Centre in March 2023. An overall investment of RMB 22 million was made. The training base has obtained the national vocational skill level certification qualification, the petroleum and chemical industry vocational skill level (XLX) evaluation site, and the Xinxiang City Vocational Skill Level Certification Centre and Training Centre. It has become a chemical safety skill training base co-built by the Xinxiang Economic Development Zone. As of the end of 2024, we had undertaken safety training for more than 21,000 employees from various enterprises in the Chemical Park.

The training base has been honoured numerous awards. These comprise the Excellent Organisation Award for 2024 Henan Province Hazardous Chemicals Enterprise Position Training and Skills Competition, the Outstanding Contribution Award for 2024 China Enterprise Talent Development, the Excellent Organisation Awards for both 2023 and 2024 Xinxiang County Hazardous Chemicals Enterprise Position Training and Skills Competitions, and the Excellent Organisation Award for 2023 Xinxiang County General Workers Technical Competition.

為滿足本集團戰略人才需求，結合國務院、應急管理部相關要求，2022年5月心連心集團開始策劃建設實訓基地並於2023年3月建成心連心實訓中心、心連心職業技能等級認定中心，整體投資2,200萬元。該實訓基地獲國家職業技能等級認定資質、石油和化工行業職業技能等級（心連心）評價網站、新鄉市職業技能等級認定中心和培訓中心，成為新鄉經濟開發區共建化工安全技能實訓基地。截至2024年末，我們已承接化工園區各企業員工安全培訓2.1萬餘人。

該實訓基地榮獲2024年河南省危險化學品企業崗位練兵技術比武優秀組織獎、2024年中國企業人才發展卓越貢獻獎、2023和2024年度新鄉市危險化學品企業崗位練兵技術比武優秀組織獎、2023年度新鄉縣通用工種技術比武優秀組織獎等殊榮。



Training centre
實訓中心



TALENT ADVANCEMENT AND INCENTIVES

人才晉升與激勵

XLX Group has established a fair and transparent mechanism for selection, appointment, promotion, and exit, as well as a performance evaluation system, based on the XLX Company's Management Measures for Cadre Selection and Appointment, the Group's Management Measures for Hierarchical Appointment for Technical Personnel, the XLX Company's Position Qualification Management System, the XLX Group's Performance Management System, and the Annual Evaluation Management Measures for Management and Technical Personnel. These efforts ensure a comprehensive and objective assessment of employees' work performance and guarantee that each employee has equal opportunities for development and advancement. The Group has established dual career tracks—management and professional—where management positions are advanced through job selection and professional, technical, and production positions are advanced based on job qualification systems. In 2024, we optimised the evaluation criteria for key positions and explored a transition from target-based to share-based performance systems, promoting a culture of rewarding hard work.

The Group has clearly defined the qualification standards for the promotion of management positions, covering indicators such as age, educational background, and performance. We adhere to the principles of integrity as the foundation, cultural values as the basis, practical performance as the priority, and competency as the standard. Through comprehensive evaluations of integrity and values, public support, performance, capability, and experience, we prioritise open competitions to promote diversity and inclusion, ensuring equal promotion opportunities for all employees. In 2024, 102 outstanding talents were promoted to management positions. These include 88 males and 14 females, with 4 Hui and 1 Bai ethnic minorities. We advocate for a younger and highly qualified management team. Currently, 68% of management personnel hold bachelor's degrees or above, and 27% are aged 35 or below.

In 2024, to stimulate talent vitality and strengthen talent incentives, the Group launched the Talent Vitality Stimulation Plan. Centred on the "Eight Principles for XLX New Era Cadres," the plan establishes the right direction in talent selection, evaluation, incentives, and development, motivating employees to enhance their drive, capabilities, and vitality. We also introduced an annual management evaluation incentive programme, investing over RMB 1 million to reward top contributors to the Company's development.

心連心集團根據《心連心公司幹部選拔任免管理辦法》《集團技術人員分級聘任管理辦法》《心連心公司任職資格管理制度》《心連心集團績效管理制度》《管理、技術人員年度評價管理辦法》建立公平透明的選拔、任用、晉升、退出機制與績效評估體系，全面、客觀地衡量員工的工作表現，確保每位員工都能獲得公平的發展和晉升機會。本集團設立管理、專業雙通道，管理幹部按照崗位選拔實現晉升，專業、技術、生產類崗位按照任職資格制度晉升。2024年，我們全面優化核心業務板塊關鍵崗位考核標準，探索業務崗位從目標達成制向獲取分享制的轉型，倡導多勞多得正向激勵的考核導向。

本集團明確管理幹部晉升資格標準，涵蓋年齡、學歷、績效等指標。我們秉持品德為底、文化價值觀為基、實戰業績為要、勝任能力為準，經品德與價值觀、群眾基礎、業績、能力、經驗等多維度綜合考評，堅持公開競聘為主的選拔方式，推動多元化與包容性，保障各員工晉升機會平等。2024年，102名優秀人才晉升為管理幹部，含男性88人、女性14人，回族4人、白族1人。我們倡導管理幹部隊伍年輕化、高素質化，當下整體管理幹部中本科及以上學歷者佔比68%，35歲及以下者佔比27%。

2024年，為激發人才隊伍活力、強化人才激勵，本集團發佈人才活力激發方案，圍繞「心連心新時期幹部心八條」，在人才選拔、考察、評價、激勵、培養等環節樹立正確導向，促使人才增強動力、提升能力、激發活力。同時，我們設立年度管理幹部評價專項激勵，投入超百萬元，獎勵為企業發展作出突出貢獻的頭部奮鬥者。

Partner Collaboration: Developing Together with XLX

夥伴協同 發展心連心

XLX Group regards the aim of “March towards China’s most respected fertiliser enterprise” as its mission. It keeps optimising its procurement process and logistics, advancing digitalisation, and implementing sustainable and green purchasing practices. Concurrently, it actively engages in industry collaboration, supports rural revitalisation, delivers agricultural expertise training, promotes fertiliser innovation, and contributes to public welfare through donations and providing support in the building of infrastructure. All these practices demonstrate its full commitment to corporate responsibility.

心連心集團懷揣「成為中國最受尊重化肥企業」的願景，抓好採購、優化物流、推行數字化，開展可持續與綠色採購；同時，積極參與行業合作，助力鄉村振興，開展農技培訓、推廣肥料，熱心公益，捐物資、助基建，全方位踐行企業責任。

SDGs Addressed in this Chapter:

本章所回應的 SDGs:



Major Material Topics of Sustainability Covered in this Chapter:

本章所涉及的重大可持續發展議題:

- ◆ Supply Chain Management
供應鏈管理
- ◆ Community Public Welfare Services
社區與公益



Sustainable Supply Chains

可持續供應鏈

XLX Group adheres to the philosophy of win-win collaboration, advances the development of sustainable supply chains, and works with upstream and downstream partners to build a sustainable industrial environment. We established a Procurement Centre with special personnel overseeing the procurement across all product categories, including quality control for materials and coal procurement, digital transformation, and ESG management, so as to promote green development across the value chain.

心連心集團秉持合作共贏理念，深化可持續供應鏈建設，攜手上下游共建可持續產業生態。我們成立採購中心，派專員負責全品類採購管理，涵蓋物資、煤炭採購的質量把控、數字化轉型與 ESG 管理，帶動價值鏈綠色發展。

SUPPLY CHAIN MANAGEMENT FRAMEWORK AND POLICIES

供應鏈管理架構和制度

XLX Group operates a four-tier procurement management structure: “Chief Procurement Officer—Deputy Managers—Division Heads—Specialists”. The Chief Procurement Officer makes the Group’s procurement strategies and ensures the implementation of the Group’s objectives and annual priorities. Deputy Managers are responsible for procurement of general materials and coal procurement respectively. The Group’s chemical sales division manages the procurement of bulk chemical raw materials. In 2024, the Group updated relevant systems including the Supplier Management System and the Bidding Management System, further strengthening the supply chain management framework. Additionally, the Group formulated the Procurement Personnel Performance Management Measures to ensure high-quality task delivery and advance the Procurement Centre’s three-year strategic plan and annual objectives.

心連心集團建立「採購總監 - 副經理 - 處長 - 科員」四級採購治理架構，由總監負責制定和監督集團採購戰略、目標和年度重點工作的執行，下設副經理分別負責通用類物資採購和煤炭採購的具體事務。本集團旗下化工銷售事業部負責大宗產品的化工原料採購。2024 年，本集團修訂《供應商管理制度》《集團招標管理制度》等制度文件，進一步完善了供應鏈管理體系。此外，本集團制定《採購人員績效管理辦法》，管理並激勵採購人員保質保量完成重點工作，推動採購中心三年規劃與年度目標落地。

FULL LIFECYCLE SUPPLIER MANAGEMENT

供應商全生命週期管理

In order to improve supply chain management efficiency and strengthen supplier management capabilities, XLX Group keeps refining its full lifecycle supplier management process, including supplier analysis, matching, sourcing, access, evaluation, and exit mechanisms. In the same time, the Group proactively advances supply chain risk management in areas such as product quality and response to climate change. It also continuously improves its supplier procurement system for core categories of products. These measures contribute to standardised, systematic, and digitalised supplier management and improve both the efficiency and quality of supply chain operations.

為進一步提高供應鏈管理效率，加強供應商管理能力，心連心集團持續完善包括供應商分析、匹配、尋源、准入、評價、淘汰等環節在內的全生命週期管理流程。同時，本集團積極推進產品質量、應對氣候變化等方面的供應鏈風險管理，並不斷完善核心品類供應商採購系統，實現供應商規範化、系統化、數字化管理模式，提升供應鏈管理的效率和質量。

Performance 績效

As of the end of 2024, the Group 截至 2024 年末, 本集團



had boasted **1,886** suppliers (**226** new suppliers compliant with bidding and procurement standards added compared to late 2023)

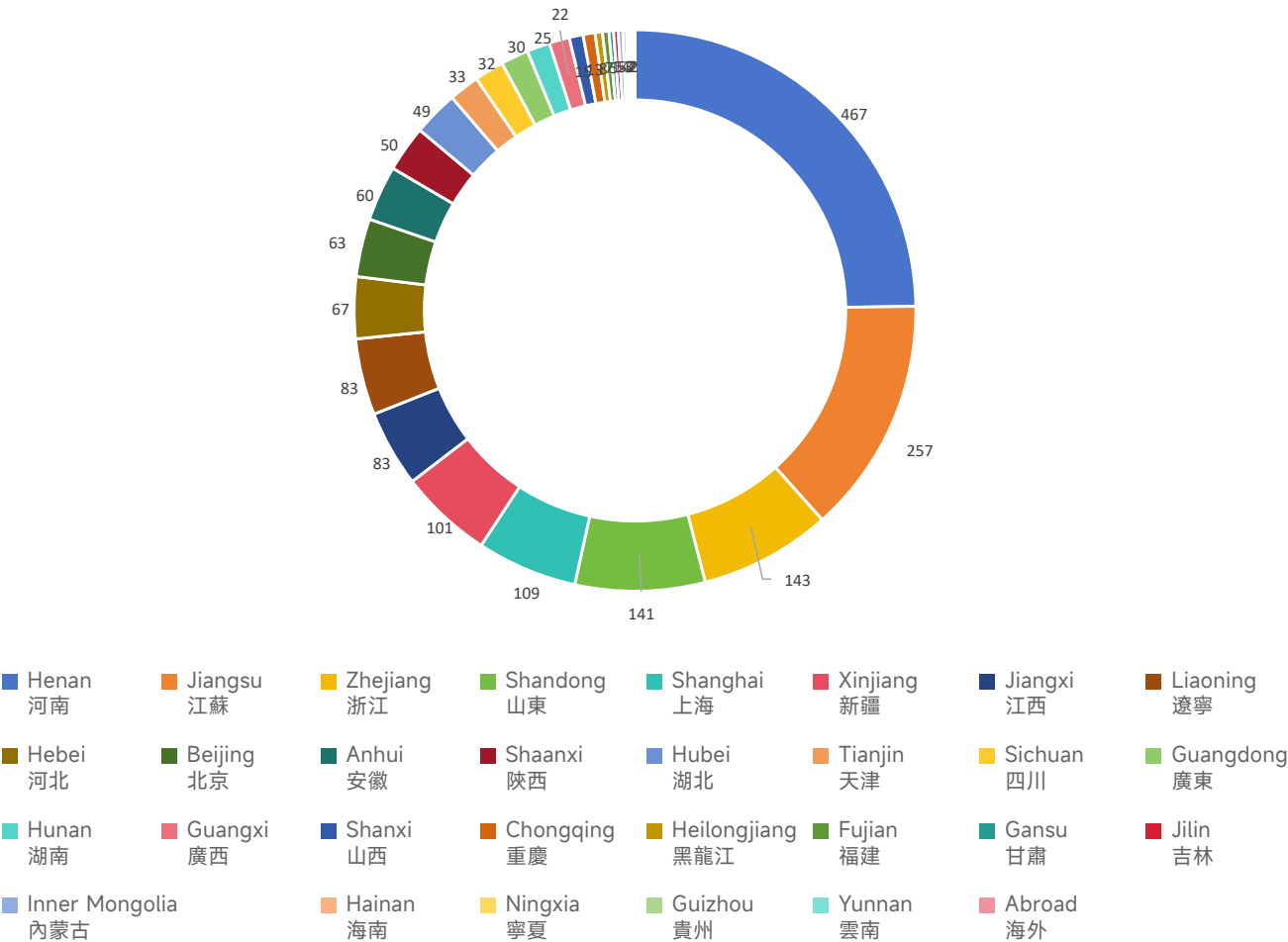
供應商總計 **1,886** 家, 較 2023 年年末, 新增滿足招投標和採購管理的供應商 **226** 家



Among them, the number of tier 1 suppliers was **1,392**, and that of non-tier 1 suppliers reached **494**

一級供應商 **1,392** 家, 非一級供應商 **494** 家

Distribution of the XLX Group's Suppliers in 2024
心連心集團 2024 年供應商地區分佈情況



Distribution of the XLX Group's Suppliers from 2023 to 2024
本集團 2023-2024 年供應商按地區分佈情況

Indicator 指標	Unit 單位	2024	2023
Total number of suppliers 供應商總數	Number 家	1,886	1,660
Total number of domestic suppliers 供應商總數-國內	Number 家	1,884	1,658
Total number of international suppliers 供應商總數-國外	Number 家	2	2

SUPPLIER DEVELOPMENT AND ACCESS 供應商開發與准入

The Group divides general materials into four categories based on procurement criticality and market competition: critical, bottleneck, leverage, and routine. For each category, differentiated access criteria and evaluation principles are applied, including qualification reviews, on-site inspections, and market evaluations. These steps ensure that selected suppliers meet the Group's standards for their qualification and delivery capability.

本集團根據採購物資重要性及市場競爭度，將通用類物資分為關鍵類、瓶頸類、杠杆類、日常類，對不同類別供應商實施差異化的准入資格確認標準和考察原則，進行資質審核、實地考察、市場考察，評估和充分了解入選供應商的資質和供貨能力，確保其符合本集團的規範要求。

SUPPLIER EVALUATION AND EXIT MECHANISMS 供應商評估與退出機製

The Group focuses on supplier performance in delivery capacity, safety, and environmental management. We proactively take measures to ensure supply chain compliance and sustainability. We implemented the 2024 Supplier Evaluation Framework to enhance supplier performance management. Suppliers are assessed across ten dimensions, such as technical investment, delivery quality, timeliness, and safety and environmental compliance. Based on comprehensive evaluations, suppliers are graded as A, B, C, or D.

本集團持續關注供應商的供貨能力、安全、環境管理行為，積極採取措施，確保供應鏈的合規性和可持續性。我們制定《2024 年供應商評價方案》完善供應商績效評價管理，評價維度包括技術投入、供貨質量、供貨及時性、安全環保等十個方面，並根據綜合評定結果將供應商分為 A、B、C、D 四個等級。

Differentiated management is then applied. For instance, strategic suppliers (grade A) are given priority in resource allocation and new product development. Suppliers on the blacklist are barred from bidding and procurement activities for at least one year. In 2024, the Group terminated partnerships with a total of 11 suppliers.

我們對不同級別的供應商進行差異化管理，對戰略供應商（即 A 等級供應商）在資源規劃、新品開發等方面進行優先分配。對於被列入黑名單的供應商，我們限制其至少一年以上不得參與本集團招投標及採購業務往來。2024 年，我們共與 11 家供應商終止業務合作。

Supplier Rating and Management Measures
供應商分級定位和管理措施

Supplier Rating 供應商分級	Classification 定位	Management Measures 管理措施	Supplier Rating in 2024 2024 年供應商分級情況
AGrade A等級	Strategic/core 戰略/核心	Enhance business collaboration with them and support each other's business development, and motivate them by awarding certification, exempting them from deposits, and giving them priority to negotiate prices 強化業務合作，相互支援業務開展，通過供應商頒牌、免交保證金、議價優先權等方式激勵A等級供應商	19
BGrade B等級	Partner 合作夥伴	Make plans for areas that need to be improved and offer support to them 共同研討其待提升的績效表現，協助B等級供應商進行提升和改進	120
CGrade C等級	Qualified 合格供方	Require them to rectify their performance within a time limit and guide them in implementing relevant plans and measures 要求其在限定時間內整改其不良表現，適時輔導供應商落實整改計劃和措施	1,079
DGrade D等級	Banned from cooperation 限制合作	Initiate the exit procedures 啟動供應商淘汰流程	27

SUPPLIER EMPOWERMENT
供應商賦能

The Group prioritises communication with suppliers and the enhancement of their capability. We communicate with suppliers through meetings, on-site inspections with strategic suppliers, and submission of stamped official documents. Together with suppliers, we deliberate on issues where product or service quality does not meet the Group's requirements or expectations, and assist suppliers in rectification. In addition, during supplier inspections and audits, the Group engages in discussions with suppliers on certain ESG governance issues and explores cooperation opportunities in new energy sources such as wind power, photovoltaic, and energy storage. Through these measures, the Group and suppliers jointly promote sustainable development and green, low-carbon transformation of the supply chain.

本集團重視供應商溝通與能力提升。我們以會議溝通、邀請戰略供應商實地考察、遞交發函蓋章文件等形式和供應商進行溝通交流，與供應商共同研討產品或服務質量等不符合本集團要求或預期的問題，並協助供應商進行整改。此外，本集團在供應商巡檢和審核過程中會針對部分 ESG 管治問題與供應商展開交流，並同供應商探討風電、光伏、儲能等新能源合作空間，共同推進供應鏈可持續發展和綠色低碳轉型。



Meeting held for communication with suppliers
供應商與會溝通現場



RESPONSIBLE PROCUREMENT MANAGEMENT 負責任採購管理

XLX Group attaches great importance to environmental and social risk management across the supply chain. In the procurement process, we follow the management principle of balancing economic, environmental, and social benefits, and require suppliers to strictly comply with relevant laws and regulations in locations where they operate. Furthermore, the Group requires suppliers to adhere to the provisions of environmental protection, quality, health, safety, and business ethics outlined in tender documents and contracts throughout the four stages: access, cooperation, audit, and joint development. During the process of supplier audit, we also evaluate suppliers in a comprehensive way based on their occupational health and safety management, employee working hours, and other factors.

心連心集團高度重視供應鏈環境和社會風險管理，在採購環節遵循經濟、環境與社會效益兼顧的管理原則，要求供應商嚴格遵守運營所在地的相關法律法規。此外，本集團要求供應商在准入、合作、審核和共建四個環節全程遵守招標文件和合同中的環境保護、質量、健康、安全和商業道德條款。在供應商審核環節，我們還會結合供應商職業健康安全管理和員工工作時間等表現對供應商進行綜合評價。

Performance 績效

As of the end of 2024, the Group 截至 2024 年末，本集團



The Group's **1,392** suppliers had obtained the ISO 14001, ISO 9001, and ISO 45001 certification

1,392 家供應商已通過 ISO 14001、ISO 9001、ISO 45001 三體系認證



560 suppliers had obtained SA 8000 certification

560 家供應商已通過 SA 8000 體系認證



720 suppliers had obtained other certification

720 家供應商已通過其他體系認證

SUPPLY CHAIN INTEGRITY AND COMPLIANCE MANAGEMENT

供應鏈廉潔合規管理

To ensure that both suppliers and buyers adhere to principles of integrity, honesty, and ethics in business activities, the Group requires suppliers to sign the Integrity Agreement and collaborates with coal suppliers in signing the Agreement on Joint Contribution to Integrity provided by them. Additionally, the Group carries out integrity procurement training for procurement personnel to enhance their awareness of integrity and regulate their behaviour, so as to establish sound and positive long-term relationships with suppliers.

為確保供求雙方在業務活動中遵守廉潔、誠實和道德準則，本集團要求物資供應商簽訂《廉潔協議書》，並配合煤炭供應商簽署其提供的《廉潔共建協議書》。此外，本集團面向採購人員開展廉潔採購培訓，提高採購人員的廉潔意識，規範採購人員行為，以便和供應商建立健康、積極的長期合作關係。



Procurement personnel's visit to the Integrity Education Center in Xinxiang
組織採購人員赴新鄉市廉政教育館開展廉政教育活動



Specialised training for procurement personnel on the Compliance and Risk Management in Procurement Process
組織採購人員進行《採購流程優化合規性及風險管理》專題培訓

Performance 績效

As of the end of 2024, the Group 截至 2024 年末，本集團



100% of the Group's suppliers signed provisions related to responsible procurement or open and transparent procurement

供應商已 **100%** 簽署責任採購或陽光採購相關條款



We conducted **2** integrity training sessions for procurement personnel, with a total of **150** employees participating and the total training duration of **17** hours for procurement staff

開展採購人員廉潔培訓 **2** 次，參與員工共計 **150** 人，採購人員受訓總時長 **17** 小時

SUPPLY CHAIN QUALITY MANAGEMENT 供应链管理

To enhance suppliers' quality control capability, the Group has shifted from "post-production inspection" to preventive quality management at the "production source". We have formulated the Second-Party Audit Management Regulations for the Procurement System and the Evaluation Form of Woven Bag Supplier Audit. Through on-site inspections and audits of material suppliers, as well as analysis and testing of incoming fuel coal, we control the quality of purchased materials.

In 2024, the Group audited 12 suppliers, including procurement of shipping services, woven bags, instrumentation valves, etc. For suppliers involved in quality issues, we issued material quality analysis reports, required them to review their quality control procedures, identify non-conforming parts and loopholes, and formulate measures for return-to-factory services and prevention of such circumstances.



為提升供應商質量控制水平，從「事後把關」轉變為對「產品生產源頭」的預防性質量管理，本集團制定《採購系統第二方審核管理規定》《編織袋供應商審核檢查評比表》，通過對物資供應商進行巡檢審核、分析入場燃料煤質量並進行化驗，以控制購入物資的質量。

2024 年，本集團審核 12 家廠家，涵蓋航運服務、編織袋、儀錶閥門等採購。對有質量問題的供應商，我們出具物資質量原因分析單，要求梳理質量控制程序方法、不合格環節及程序漏洞，制定返廠處理及後續糾偏預防措施。



The Group conducts on-site inspections and audits of suppliers' factories in terms of procurement management, production process control, and product inspection, and provides improvement suggestions, thereby enhancing suppliers' capabilities in product quality control and sustainable development.

本集團對供應商工廠開展採購管理、生產程序控制、產品檢驗等方面的現場巡檢審核，並提出改進建議，提升了供應商產品質量把控、可持續發展等方面的能力。

SUPPLY CHAIN DIGITAL MANAGEMENT

供應鏈數字化管理

XLX Group actively advances the digital management of its supply chain by establishing an online procurement platform and developing a supplier inventory system module for outstanding suppliers, facilitating the digital transformation and upgrading of the group's procurement processes. In 2024, the Group has completed several digital supply chain management projects, including the development and application of a system for setting thresholds for core category suppliers and the integration of the "Blue Bee" supplier sourcing platform for petroleum&chemical industry with the professional e-commerce platform "PLANT-MATE". Moreover, the Group has also advanced the online application of the bidding and procurement platform for the bidding and procurement of general goods, as well as the online registration system via scanning QR code for new supplier visits. These initiatives have deeply integrated information technology into supply chain management, significantly improving procurement management efficiency.

心連心集團積極推進供應鏈數字化管理，通過搭建線上採購平臺和針對優秀供應商開發供應商庫存系統埠，助力本集團採購數字化轉型與升級。2024 年度，本集團已完成核心品類供應商入圍門檻系統開發應用、石化行業供應商尋源平臺「藍蜜蜂」與專業電商平臺「工自儀」的對接、通用品類物資招采平臺線上應用、新供應商到訪掃碼線上登記等供應鏈數字化管理項目，將信息化深度融入供應鏈管理，顯著提升了採購管理效率。

Case 案例

Hangzhou Xinnuo supply chain system 杭州心諾供應鏈系統

In March 2024, Hangzhou Xinnuo, one of the subsidiaries of the Group, officially launched its supply chain system. It enables the entire procurement process to be conducted online and can generate data reports. This not only improves quality and efficiency but also supports the subsidiary's procurement decisions. As of November 2024, the Xinnuo supply chain system has functions such as daily trade reports, daily profit reports, and logistics subsidiary ledgers. Other functions such as customer subsidiary ledgers and supplier subsidiary ledgers are still under development. In the future, in order to cope with different market environments, the Xinnuo supply chain system will further advance the in-depth application of the system, deliver and continuously improve its data dashboards, and launch smart logistics functions to achieve production-trade integration and cater to customers.

本集團旗下子公司杭州心諾於 2024 年 3 月正式上線運行供應鏈系統，實現採購全流程線上開展，同時形成數據報表，提質增效的同時支撐子公司採購決策。截至 2024 年 11 月，心諾供應鏈系統已實現日貿易報表、日利潤報表、物流明細賬等功能配置，客戶明細賬、供應商明細賬等功能仍在配置過程中。未來，為應對不同市場環境，心諾供應鏈系統將進一步推動系統深度應用，交付並不斷完善數據看板，上線智慧物流，以實現產貿一體化，提升客戶體驗。

Industrial Cooperation and Development 行業協作與發展

XLX Group is fully committed to fostering an open and inclusive cooperation environment. It closely connects itself with industry associations, leading enterprises in the industry, upstream and downstream partners in the supply chain, as well as academia, research institutions, and other relevant parties. The Group actively engages in comprehensive cooperation and exchanges to make concerted efforts to make breakthroughs in the sustainable development of the industry.

心連心集團全力營造開放包容的合作生態，與行業協會、行業頭部企業、供應鏈上下游合作夥伴，以及學術界、研究機構等相關方緊密聯動，積極開展全方位的合作與交流，共同開創行業可持續發展的嶄新局面。

EXTERNAL EXCHANGE 對外交流

In 2024, the Group actively engages in external exchanges and learning activities. For example, we visited Midea Group for benchmarking exchanges on the construction of a shared HR centre, held an exchange meeting with seven peers including LUXI Chemical and Hualu Hengsheng and other peer exchange meetings on melamine, DMF, and mixed methylamines. We actively participated in the Digital Transformation Summit of the New Materials Industry and the Conference for High-Quality Development of Intelligent and Digital Transformation in the Chemical Industry. Moreover, we co-sponsored/titled/was invited to participate in the 21st Central Plains Fertilizer (Agricultural Materials) Product Trading and Information Exchange Conference, the International Fertilizer Association (IFA) Asia-Pacific Conference, and the 14th China International New Fertilizer Exhibition, etc.

2024年，本集團積極開展對外交流與學習活動，如我們赴美的集團就人事共用中心建設進行對標交流，組織魯西化工、華魯恒升等7家同行召開企業交流會，組織召開三聚氰胺、DMF、混甲胺同行企業交流會，積極參加新材料行業數字化轉型峰會與化工行業智改數轉高質量發展大會，協辦/冠名/受邀參加第二十一屆中原肥料（農資）產品交易暨信息交流會、國際肥料協會（IFA）亞太地區聯合會議、第十四屆中國國際新型肥料展覽會等。



On 1 August, 2024, XLX Group hosted the Second Humic Acid Development and Application Summit Forum and invited industry experts for in-depth exchanges on the development and application of humic acid and industry trends.

心連心集團於2024年8月1日舉辦第二屆腐植酸發展應用高峰論壇，特邀行業專家圍繞腐植酸發展應用及行業發展趨勢展開深入交流。



The first stop of the “Witnessing the Power of Role Models in Henan Province” benchmarking enterprise study tour, jointly hosted by the Henan Private Enterprises Association and the Xinxiang Entrepreneurs’ Federation, was held at XLX Group on 25 May 2024. More than 300 representatives from various sectors participated in the activity. Through on-site observations, experience sharing, and entrepreneur salons, they learned about the development of the Group’s advanced strategies and its culture.



由河南省民營企業協會、新鄉市企業家聯合會主辦的「豫見榜樣的的力量」標杆企業訪學活動第一站於2024年5月25日在心連心集團舉行，各界代表共計300余人通過現場觀摩、主題分享、企業家沙龍等形式，學習本集團先進戰略文化發展經驗。

MEMBERSHIP ASSOCIATIONS

協會成員資格

We actively participate in various associations, providing professional knowledge and our practical experience for them while promoting our own development. Thus we contribute to the improvement of industry rules, resource integration, and the deepening of exchange and collaboration, so as to achieve win-win results for both the enterprise and the associations.

我們積極投身各類協會，在推動自身持續發展的同時為協會注入專業智慧與豐富實踐經驗，助力行業規則完善、資源整合及交流協作深化，實現企業與協會的互利共贏。

List of Major International/National Associations and Social Organizations the Group Participated in 本集團參與的國際 / 國家級主要協會與社會機構名單

Organization name 機構名稱	Position 擔任職務
International Fertilizer Industry Association 國際肥料工業協會	Member, ambassador for the Asia-Pacific region 會員、亞太地區大使
China Nitrogen Fertilizer Industry Association 中國氮肥工業協會	Senior vice chairman 高級副理事長
China Chemical Industry Environmental Protection Association 中國化工環保協會	Executive chairman 常務理事張
Group Standardisation Working Committee of the China Nitrogen Fertilizer Industry Association 中國氮肥工業協會團體標準化工作委員會	Member 委員

Organization name 機構名稱	Position 擔任職務
Green Ammonia and Green Alcohol Industry Alliance of the China Nitrogen Fertilizer Industry Association 中國氮肥工業協會綠氨綠醇產業聯盟	Vice chairman 副理事長
Humic Acid Standardization Working Committee of the China Nitrogen Fertilizer Industry Association 中國氮肥工業協會腐植酸標準化工作委員會	Member 委員
Commodity Ammonia Branch of the China Nitrogen Fertilizer Industry Association 中國氮肥工業協會商品氨分會	Vice president 副會長
Sub-Committee on Nitrogen Fertilizers of National Technical Committee on Fertilizers and Soil Conditioners of Standardization Administration of China 全國肥料和土壤調理劑標準化技術委員會氮肥分技術委員會	Member 委員
Standardization Working Committee of the Chinese Society of Plant Nutrition and Fertilizer Science 中國植物營養與肥料學會標準工作委員會	Member 委員
Polyoxymethylene Industry Collaboration Group of the China Synthetic Resin Association 中國合成樹脂協會聚甲醛行業協作組	Council member 理事
China Internal Combustion Engine Industry Association 中國內燃機工業協會	Vice chairman 副理事長
Integrated Circuit Materials Industry Technology Innovative Alliance 積體電路材料產業技術創新戰略聯盟	Member unit 會員單位
China Photovoltaic Industry Association 中國光伏協會	Member unit 會員單位
China Electronic Chemical Materials Alliance 電子化工新材料產業聯盟	Council member unit 理事單位
China Industrial Gases Industry Association 中國工業氣體協會	Council member unit 理事單位
Special Committee on CO ₂ of the China Industrial Gases Industry Association 中國工業氣體協會二氧化碳專委會	Deputy committee member 副主任委員
Fire Extinguishing Gas Branch of the China Industrial Gases Association 中國工業氣體協會消防氣分會	Council member unit 理事單位
Electronic Gas Branch of the China Industrial Gases Association 中國工業氣體協會電子氣分會	Council member unit 理事單位
Digital Intelligence Branch of China Industrial Gases Association 中國工業氣體協會數字化智能分會	Council member unit 理事單位
Working Committee of the China Enterprise Anti-Fraud Alliance 企業反舞弊聯盟工作委員會	Member unit 會員單位
Digital Transformation Promotion Center for the Petrochemical and Chemical Industry 石化化工行業數字化轉型推進中心	Deputy director 副主任
China Enterprise Anti-Fraud Alliance 中國企業反舞弊聯盟	Member unit 會員單位

STANDARD FORMULATION

標準制定

We take the initiative to lead and participate in the formulation and implementation of national, group, and industry standards, which not only enhances our own influence but also promotes the industry to have clear guidelines and standards to follow.

我們積極主導、參與到國家標準、團體標準和行業標準的制定與實施中，在提升自身影響力的同時助推化工行業有規可參、有標可依。

List of Group, Industry, Local, and National Standards Co-Developed by the Group (Partial)
本集團參與編制的團體標準、行業標準、地方標準、國家標準清單（部份）

Organization name 機構名稱	Type 類型	Status 狀態	Approving authority 歸口單位
Management Specification for Safety of Chemical Plant Equipment 《化工設備安全管理規範》	National standard 國標	Issued 發佈	National Technical Committee on Dangerous Chemicals Management of Standardization Administration of China 全國危險化學品管理標準化技術委員會
Digital Transformation Management—Guidance for Capability System Construction 《數字化轉型管理能力體系建設指南》	National standard 國標	Under approval 報批	National Technical Committee on Integration of Informatization and Industrialization Management of Standardization Administration of China 全國信息化和工業化融合管理標準化技術委員會
Industrial Internet Platform—Digitalization Management of Safety Production—Part 2: Petrochemical and Chemical Industry 《工業互聯網平臺安全生產數字化管理第2部分：石化化工行業》	National standard 國標	Under public consultation 徵求意見	National Technical Committee on Integration of Informatization and Industrialization Management of Standardization Administration of China 全國信息化和工業化融合管理標準化技術委員會
Technical Specification for Quantification and Verification of Greenhouse Gas Emission Reduction of Carbon Capture, Utilization and Storage (CCUS) Project 《碳捕集、利用與封存（CCUS）項目溫室氣體減排量化和核査技術規範》	National standard 國標	Under public consultation 徵求意見	National Technical Committee on Environmental Management of Standardization Administration of China 全國環境管理標準化技術委員會
Norm of Water Intake—Part 8: Synthetic Ammonia 《取水定額第8部分：合成氨》	National standard 國標	Under public consultation 徵求意見	National Technical Committee on Industrial Water Conservation of Standardization Administration of China 全國節水標準化技術委員會
Requirements for Carbon Dioxide Emission Accounting and Reporting—Synthetic Ammonia Enterprises 《二氧化碳排放核算與報告要求合成氨企業》	Industry standard 行標	Under approval 報批	China Petroleum and Chemical Industry Federation 全國石油和化學工業聯合會
Requirements for Carbon Dioxide Emission Accounting and Reporting—Methanol Enterprises 《二氧化碳排放核算與報告要求甲醇企業》	Industry standard 行標	Under approval 報批	China Petroleum and Chemical Industry Federation 全國石油和化學工業聯合會
Humic Acid Urea 《腐植酸尿素》	Group standard 團標	Issued 發佈	China Nitrogen Fertilizer Industry Association 中國氮肥工業協會
Grading Standards for Green Synthetic Ammonia 《綠色合成氨分級標準》	Group standard 團標	Under approval 報批	China Nitrogen Fertilizer Industry Association 中國氮肥工業協會
Grading Standard of Green Methanol 《綠色甲醇分級標準》	Group standard 團標	Under approval 報批	China Nitrogen Fertilizer Industry Association 中國氮肥工業協會

Organization name 機構名稱	Type 類型	Status 狀態	Approving authority 歸口單位
Evaluation Guidelines for High-Quality Development of Petrochemical Enterprises 《石化行業企業高質量發展評價指南》	Group standard 團標	Drafting 起草	National Standardization Administration of the PRC 國家標準化管理委員會
Green Manufacturing—Evaluation Indexes 《綠色製造技術指標》	National standard 國標	Issued 發佈	National Technical Committee on Green Manufacturing Technology of Equipment Manufacturing Industry of Standardization Administration of China 全國綠色製造技術標準化技術委員會
Requirements for Assessment of Green Factory in Urea for Diesel Engine Exhaust Purification Industry 《車用尿素行業綠色工廠評價要求》	Industry standard 行標	Issued 發佈	China Petroleum and Chemical Industry Federation 中國石油和化學工業聯合會
Co-Produced Sodium Phosphate of α -acetyl- γ -butyrolactone for Industrial Use 《工業用 α -乙酰基- γ -丁內酯聯產磷酸鈉鹽》	Industry standard 行標	Issued 發佈	The Chemical Industry and Engineering Society of China 中國化工學會
Pure Krypton, High Purity Krypton and Ultra Pure Krypton 《純氬、高純氬和超純氬》	National standard 國標	Under review 正在審查	National Technical Committee on Gas of Standardization Administration of China 全國氣體標準化技術委員會
Pure Xenon, High Purity Xenon and Ultra Pure Xenon 《純氙、高純氙和超純氙》	National standard 國標	Under review 正在審查	National Technical Committee on Gas of Standardization Administration of China 全國氣體標準化技術委員會
Pure Neon, High Purity Neon and Ultra Pure Neon 《純氖、高純氖和超純氖》	National standard 國標	Under review 正在審查	National Technical Committee on Gas of Standardization Administration of China 全國氣體標準化技術委員會
Electronic Gas—Noble Gas 《電子氣體惰性稀有氣體》	National standard 國標	Under review 正在審查	National Technical Committee on Semiconductor Equipment and Materials of Standardization Administration of China 全國半導體設備和材料標準化技術委員會
Pure Helium, High Pure Helium and Ultra Pure Helium 《純氦氣、高純氦和超純氦》	National standard 國標	Under review 正在審查	National Technical Committee on Gas of Standardization Administration of China 全國氣體標準化技術委員會
Methane 《甲烷》	National standard 國標	Under review 正在審查	National Technical Committee on Gas of Standardization Administration of China 全國氣體標準化技術委員會
Pure Oxygen and High Purity Oxygen and Ultra Pure Oxygen 《純氧、高純氧和超純氧》	National standard 國標	Under review 正在審查	National Technical Committee on Gas of Standardization Administration of China 全國氣體標準化技術委員會
Electronic Gas—Carbon Monoxide 《電子氣體一氧化碳》	National standard 國標	Issued 已發表	National Technical Committee on Semiconductor Equipment and Materials of Standardization Administration of China 全國半導體設備和材料標準化技術委員會
Electronic Gas—Carbon Dioxide 《電子氣體二氧化碳》	National standard 國標	Issued 已發表	National Technical Committee on Semiconductor Equipment and Materials of Standardization Administration of China 全國半導體設備和材料標準化技術委員會
Electronic Gas—Carbonyl Sulfide 《電子氣體羰基硫》	National standard 國標	Issued 已發表	National Technical Committee on Semiconductor Equipment and Materials of Standardization Administration of China 全國半導體設備和材料標準化技術委員會
Maturity model and Assessment of Digital Transformation for Petrochemical and Chemical Industry 《石化和化工行業數字化轉型成熟度模型與評估》	Industry standard 行標	Project approved 立項	China Petroleum and Chemical Industry Federation 中國石油和化學工業聯合會
Technical Specifications for Explosion-Proof Intelligent Inspection Robots in Petroleum, Chemical and New Material Enterprises 《石油、化工及新材料企業防爆智能巡檢機器人技術規範》	Group standard 團標	Project approved 立項	Henan Petroleum and Chemical Industry Association 河南省石油和化學工業協會

Rural Revitalization

鄉村振興

XLX Group is committed to making contributions to economic prosperity in rural areas by providing high-quality fertiliser products and professional guidance. Our fertilisers help farmers to improve crop yields and quality, so as to increase their income and boost rural economic growth. We also provide free professional guidance on planting and farm management advice. These ensure scientific cultivation and fertiliser use, thus improving agricultural productivity and advancing rural revitalisation.

心連心集團致力於以優質化肥產品和專業農業指導，推動鄉村經濟繁榮。我們的化肥產品助力農民提高農作物產量與質量，增加農業收入，促進鄉村經濟增長。同時，我們免費提供專業化種植技術指導與農業管理建議，幫助農民科學種植、合理施肥，提升農業生產水平，推動鄉村振興。

Performance 績效

In 2024 2024 年



Xinxiang Base: **344** demonstration plots and **1,299** demonstration fields were established. A total of **321** large-scale observation tours were held, with **40,023** participants, and **1,725** observation events for large-scale grain farmers were organised, with **46,086** participants

新鄉基地：設置示範方**344**塊，示範田**1,299**塊；組織大型觀摩會**321**場，累計參會**40,023**人；大戶觀摩會**1,725**場，累計參會**46,086**人



Xinjiang Manas Base: A total of **580** sessions were delivered to provide farmers with agrochemical services. These benefited **16,000** farmers through helping them have a better understanding of science-based farming principles and formula fertilisation by soil testing

新疆瑪納斯基地：開展農化服務**580**次，傳播科學種田理念、宣傳測土配肥知識的受惠人群達**1.6**萬

Case
案例Promoting rural revitalization through integrated water and fertiliser management system
水肥一體化模式助力鄉村振興

To advance the development of smart agriculture and make it more accessible, the Group has established integrated water and fertiliser management workstations in multiple regions. It also collaborated with universities to develop systems suitable for different areas featuring specific soil conditions, crop types, and climatic characteristics. These have injected great momentum into rural revitalization and agricultural development.

為推動智慧農業發展與普及，本集團在多地區佈局水肥一體化工作基站，並聯合科研院校，針對不同區域的土壤條件、作物種類和氣候特點，研發適配的智能水肥管理系統，為鄉村振興和農業發展注入強勁動力。

- In Xinjiang, we have invested RMB 60 million to build a research centre. By considering local characteristics, we provide precise fertiliser application for cotton throughout its entire growth cycle and establish a full-process service system. By the end of 2024, the integrated water and fertiliser management system in Xinjiang had covered over 600,000 mu of cropland and promoted the use of 82,000 tons of water-soluble and liquid fertilisers. This helped farmers reduce the fertiliser use by 15-20% and increase crop yields by 3-5%, achieving cost reduction and income increase.
- In Jiangxi Ganzhou, we have promoted the demonstration of and the integrated water and fertiliser management system for navel oranges, helping farmers to save their time, labour, fertiliser use, and water. It is estimated that the demonstration fields have helped farmers to reduce fertiliser use by 30-50% and increase yields by approximately 8%, with comprehensive benefits per mu increasing by RMB 575-772.

- 在新疆，投入 6,000 萬建研究中心，我們結合當地特點為棉花全週期精準配肥，構建全流程服務體系。截至 2024 年末，新疆水肥一體化覆蓋作物面積超 60 萬畝，累計推廣水溶肥、液體肥 8.2 萬噸，幫農戶省肥 15-20% 並增產 3%-5%，實現降本增收。
- 在江西贛州，我們針對臍橙作物開展水肥一體化模式示範推廣，說明農戶省時省工省肥省水。經測算，示範田塊幫助農戶節肥 30%-50%，增產約 8%，畝綜合效益提升 575-772 元。



Product managers for integrated water and fertiliser management system provided technical guidance to farmers

- ◀ 水肥一體化產品經理對農戶進行農技指導

Community Influence and Public Welfare Services

社區影響與公益

XLX Group is determined to fulfil its corporate social responsibility and keeps in mind the spirit of “Dedicated to hard work, satisfy the needs of others” and the “Eight Principles” for Party members and cadres. It also dedicates itself to public welfare services and contributes to society through concrete actions. Focusing on community welfare, educational support, and community care, the Group stays ready to participate in various donation activities to provide assistance for vulnerable groups through donations of funds and materials. It delivers care and demonstrates its dedication to the community, contributing to the building of a harmonious and warm society.

The Group has invested more than RMB 100 million in public welfare. Utilizing its own advantages in agrochemical services, it continues to carry out charity activities in the technology demonstration villages in Henan Province and nationwide. By the end of 2024, we had established 323 demonstration villages, conducted 323 public welfare activities in these villages, and held 4,446 science lectures. We have given over 6,000 schoolbags to impoverished families and provided more than 400 tons of free demonstration fertilisers. Additionally, we have promoted scientific planting technology to help impoverished farmers increase their production and income.

During 2024, we took concrete actions to fulfil our commitment to public welfare services. For instance, we donated RMB 1 million to the “Boundless Love for Charity in Xinxiang” project and contributed RMB 300,000 to the Manas County Red Cross Society. During the “99 Giving Day”, we donated RMB 15,960.8 to the Happy Homeland in Xinxiang project, RMB 15,513 to the Courageous Deeds Reward project, and RMB 50,000 to the project of Supporting the Revolutionary Base Areas and Helping Students to Pursue Higher Education. Moreover, we donated 100 tons of our compound fertiliser, clothing, and tents to support post-disaster reconstruction to the Guangxi Guiping National Unity Promotion Association.

心連心集團堅定不移地持續履行企業社會責任，踐行「自己艱苦奮鬥，滿足別人需求」的心連心之魂和黨員幹部「心八條」，積極投身公益事業，以實際行動反饋社會。本集團專注於社區公益、教育支持、社區關愛等領域，踴躍參與各類公益捐贈活動，通過捐款、物資捐助等形式，為弱勢群體提供幫助和支持，傳遞關愛與奉獻精神，為構建和諧、溫暖的社會做出貢獻。

本集團在公益事業方面的投入累計超過1億元，同時依託自身農化服務優勢，在河南省及全國範圍內持續開展科技示範村公益活動。截至2024年末，我們共建設示範村323個，開展示範村公益活動323次，科技講座4,446場。我們為貧困農戶發放書包6,000餘個，發放免費示範肥料400餘噸，同時推廣科學種植技術，幫助貧困農戶增產增收。

2024年，我們用實際行動踐行公益事業，如為大愛無疆慈善新鄉項目捐款100萬元，向瑪納斯縣紅十字協會捐贈30萬元，在「99公益日」期間為新鄉幸福家園項目捐款15,960.8元，為見義勇為項目捐款15,513元，為情系老區、圓夢大學項目捐款5萬元，向廣西桂平市民族團結促進會捐贈100噸心連心天香果色複合肥，並捐贈衣物和帳篷助力災後重建。



The Group was honoured as the Philanthropic Unit at the 2023 Henan Rural Revitalization Special Event and "99 Giving Day"
本集團榮獲2023年度鄉村振興河南專場暨「99公益日」活動愛心單位



The Group was also awarded the title of Model Labour Base for Rural Revitalization in Henan Province
本集團被評為河南省鄉村振興勞模出彩基地



Our employees promptly responded to emergency needs by voluntarily donating blood for patients in critical conditions
本集團員工迅速回應社會求助信息，自發為危重病人獻血



Performance 績效

In 2024, the Group 2024 年，本集團



approximately RMB **6.1 million** was invested in community activities, with around **400** staff members participating in them

社區活動投入約 **610** 萬元，約 **400** 人參與了社區活動



About **400** employees participated in public welfare activities for environmental protection, with the total duration of around **160 hours**

約 **400** 人參與了環保公益活動，環保公益活動投入約 **160** 小時



The number of employees participated in volunteer activities was about **350**, with a total volunteer service time of **840 hours**

員工參與志願者活動人數約 **350** 人，總志願者服務時長達 **840** 小時



Total of **95** employees participated in the public welfare cause of blood donation without repayment

95 名員工積極參加無償獻血活動

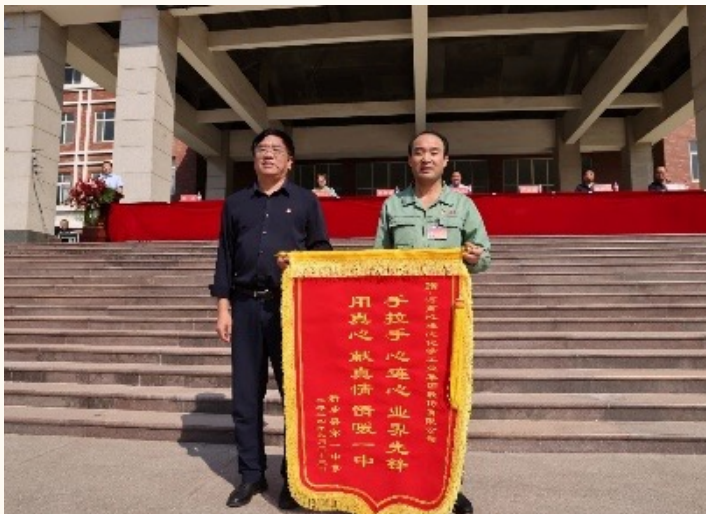


Case
案例

Support needy students in their education pursuits
助力困難學子求學

In 2024, XLX Group donated RMB 200,000 through setting the "XLX Fund" to the Charity Association of Xinxiang County to support local needy students in their education pursuits. From 2018 to 2024, we have donated a total of RMB 1,345,000 to the First High School of Xinxiang County to fund students from impoverished families who excel academically and morally and have been admitted to universities. In 2024, a donation of RMB 200,000 was made.

2024 年，心連心集團通過「連心基金」向新鄉縣慈善協會捐款 20 萬元，助力新鄉縣困難學子上學。2018-2024 年間，我們累計向新鄉縣一中捐款 134.5 萬元，用於資助高考本科以上、品學兼優的家庭困難學生，其中 2024 年捐款 20 萬元。



Support needy students in their education pursuits
資助困難學子

Appendices: Indexes of Indicators

附錄：指標索引表

HKEX ESG 索引表 HKEX ESG Index

Index 索引	Subject Areas, Aspects, General Disclosure and KPIs 指標	Pages 頁碼
A. Environment A. 環境		
Aspect A1: Emissions 層面A1: 排放物		
General Disclosure 一般披露	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer; relating to air emissions, discharges into water and land, and generation of hazardous and non-hazardous waste. 有關廢氣、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。	54-60
A1.1	The type of emissions and respective emissions data. 排放物種類及相關排放數據。	54-58
A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility). 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）。	60
A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility). 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）。	60
A1.5	Description of emissions target(s) set and steps taken to achieve them. 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。	54-85
A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them. 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。	59
Aspect A2: Use of Resources 層面A2: 資源使用		
General Disclosure 一般披露	Policies on the efficient use of resources, including energy, water and other raw materials. 有效使用資源（包括能源、水及其他原材料）的政策。	62-67
A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility). 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）。	64
A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility). 總耗水量及密度（如以每產量單位、每項設施計算）。	65
A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them. 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。	62-63

Index 索引	Subject Areas, Aspects, General Disclosure and KPIs 指標	Pages 頁碼
A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them. 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。	65
A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced. 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。	67
Aspect A3: The Environment and Natural Resources 層面A3: 環境及天然資源		
General Disclosure 一般披露	Policies on minimising the issuer's significant impacts on the environment and natural resources. 減低發行人對環境及天然資源造成重大影響的政策。	48-53, 83
A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them. 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。	48-53, 83
B. Social B. 社會		
Aspect B1: Employment 層面B1: 僱傭		
General Disclosure 一般披露	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. 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。	140-150
B1.1	Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region. 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。	142-145
B1.2	Employee turnover rate by gender, age group and geographical region. 按性別、年齡組別及地區劃分的僱員流失比率。	145
Aspect B2: Health and Safety 層面B2: 健康與安全		
General Disclosure 一般披露	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. 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。	125-139
B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year. 過去三年（包括匯報年度）每年因工亡故的人數及比率。	126
B2.2	Lost days due to work injury. 因工傷損失工作日數。	126
B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored. 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。	125-139
		185

Index 索引	Subject Areas, Aspects, General Disclosure and KPIs 指標	Pages 頁碼
Aspect B3: Development and Training 層面B3: 發展與培訓		
General Disclosure 一般披露	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities. 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。	154-164
B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management). 按性別及僱員類別（如高級管理層、中級管理層等）劃分的受訓僱員百分比。	157-158
B3.2	The average training hours completed per employee by gender and employee category. 按性別及僱員類別劃分，每名僱員完成受訓的平均時數。	158-159
Aspect B4: Labour Standards 層面B4: 勞工準則		
General Disclosure 一般披露	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 labour. 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。	140-141
B4.1	Description of measures to review employment practices to avoid child and forced labour. 描述檢討招聘慣例的措施以避免童工及強制勞工。	140-141
B4.2	Description of steps taken to eliminate such practices when discovered. 描述在發現違規情況時消除有關情況所採取的步驟。	140-141
Aspect B5: Supply Chain Management 層面B5: 供應鏈管理		
General Disclosure 一般披露	Policies on managing environmental and social risks of the supply chain. 管理供應鏈的環境及社會風險政策。	166-173
B5.1	Number of suppliers by geographical region. 按地區劃分的供應商數目。	167-168
B5.3	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored. 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，以及有關慣例的執行及監察方法。	168
B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored. 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。	170-172
B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored. 描述在揀選供應商時促使多用環保產品服務的慣例，以及相關執行及監察方法。	170

Index 索引	Subject Areas, Aspects, General Disclosure and KPIs 指標	Pages 頁碼
Aspect B6: Product Responsibility 層面B6: 產品責任		
General Disclosure 一般披露	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. 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。	31-33、 103-123
B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons. 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。	110
B6.2	Number of products and service related complaints received and how they are dealt with. 接獲關於產品及服務的投訴數目以及應對方法。	120-123
B6.3	Description of practices relating to observing and protecting intellectual property rights. 描述與維護及保障知識產權有關的慣例。	98-101
B6.4	Description of quality assurance process and recall procedures. 描述質量檢定過程及產品回收程序。	106-110
B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored. 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。	31-33
Aspect B7: Anti-corruption 層面B7: 反貪污		
General Disclosure 一般披露	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. 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。	25-26
B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases. 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。	27
B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored. 描述防範措施及舉報程序, 以及相關執行及監察方法。	29
B7.3	Description of anti-corruption training provided to directors and staff. 描述向董事及員工提供的反貪污培訓。	30
Aspect B8: Community Investment 層面B8: 社區投資		
General Disclosure 一般披露	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. 有關以社區參與來了解營運所在社區需要和確保其業務活動會考慮社區利益的政策。	181

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B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport). 專注貢獻範疇 (如教育、環境事宜、勞工需求、健康、文化、體育)。	181-183
B8.2	Resources contributed (e.g. money or time) to the focus area. 在專注範疇所動用資源 (如金錢或時間)。	182
D: Climate-related Disclosures D: 氣候變化		
Aspect: Governance 層面: 管治		
Para-graph 19 第19段	<p>(a) the governance body(s) (which can include a board, committee or equivalent body charged with governance) or individual(s) responsible for oversight of climate-related risks and opportunities. Specifically, the issuer shall identify that body(s) or individual(s) and disclose information about:</p> <p>(a) 負責監督氣候相關風險和機遇的治理機構 (可包括董事會、委員會或其他同等治理機構) 或個人的信息。具體而言, 發行人須指出有關機構或個人及披露以下信息。</p> <p>(i) how the body(s) or individual(s) determines whether appropriate skills and competencies are available or will be developed to oversee strategies designed to respond to climate-related risks and opportunities; (i) 該機構或個人如何釐定當前或將來是否有適當的技能和勝任能力來監督應對氣候相關風險和機遇的策略;</p> <p>(ii) how and how often the body(s) or individual(s) is informed about climate-related risks and opportunities; (ii) 該機構或個人獲悉氣候相關風險和機遇的方式和頻率;</p> <p>(iii) how the body(s) or individual(s) takes into account climate-related risks and opportunities when overseeing the issuer's strategy, its decisions on major transactions, and its risk management processes and related policies, including whether the body(s) or individual(s) has considered trade-offs associated with those risks and opportunities; (iii) 該機構或個人在監督發行人的策略、重大交易決策和風險管理程序及相關政策的過程中, 如何考慮氣候相關風險和機遇, 包括該機構或個人是否有考慮與該等氣候相關風險和機遇相關的權衡評估;</p> <p>(iv) how the body(s) or individual(s) oversees the setting of, and monitors progress towards, targets related to climate-related risks and opportunities, including whether and how related performance metrics are included in remuneration policies; and (iv) 該機構或個人如何監督有關氣候相關風險和機遇的目標制定並監察達標進度, 包括是否將相關績效指標納入薪酬政策以及如何納入; 及</p> <p>(b) management's role in the governance processes, controls and procedures used to monitor, manage and oversee climate related risks and opportunities, including information about:</p> <p>(b) 管理層在用以監察、管理及監督氣候相關風險和機遇的管治流程、監控措施及程序中的角色, 包括以下信息:</p> <p>(i) whether the role is delegated to a specific management-level position or management-level committee and how oversight is exercised over that position or committee; and (i) 該角色是否被委託給特定的管理層人員或管理層委員會以及如何對該人員或委員會進行監督; 及</p> <p>(ii) whether management uses controls and procedures to support the oversight of climate-related risks and opportunities and, if so, how these controls and procedures are integrated with other internal functions. (ii) 管理層可有使用監控措施及程序協助監督氣候相關風險和機遇; 如有, 這些監控措施及程序如何與其他內部職能部門進行整合。</p>	72
Aspect: Strategy 層面: 策略		
Climate-related risks and opportunities 氣候相關風險和機遇		
Para-graph 20 第20段	<p>An issuer shall disclose information to enable an understanding of climate-related risks and opportunities that could reasonably be expected to affect the issuer's cash flows, its access to finance or cost of capital over the short, medium or long term. Specifically, the issuer shall:</p> <p>發行人須披露其信息, 以讓人理解其合理預期可能在短期、中期或長期影響其現金流量、融資渠道或資本成本的氣候相關風險和機遇。具體而言, 發行人須:</p> <p>(a) describe climate-related risks and opportunities that could reasonably be expected to affect the issuer's cash flows, its access to finance or cost of capital over the short, medium or long term; (a) 描述合理預期可能在短期、中期或長期影響發行人的現金流量、融資渠道或資本成本的氣候相關風險和機遇;</p>	73-81

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Para-graph 20 第20段	<p>(b) explain, for each climate-related risk the issuer has identified, whether the issuer considers the risk to be a climate-related physical risk or climate-related transition risk; (b)就發行人已識別的每項氣候相關風險，解釋發行人是否認為該風險是與氣候相關物理風險或與氣候相關轉型風險；</p> <p>(c) specify, for each climate-related risk and opportunity the issuer has identified, over which time horizons — short, medium or long term — the effects of each climate related risk and opportunity could reasonably be expected to occur; (c)就發行人已識別的每項氣候相關風險和機遇，具體說明其合理預期可能影響發行人的時間範圍（短期、中期或長期）；及</p> <p>(d) explain how the issuer defines ‘short term’, ‘medium term’ and ‘long term’ and how these definitions are linked to the planning horizons used by the issuer for strategic decision-making. (d)解釋發行人如何定義短期、中期及長期，以及這些定義如何與其策略決定規劃範圍掛鉤。</p>	
Business model and value chain 業務模式和價值鏈		
Para-graph 21 第21段	<p>An issuer shall disclose information that enables an understanding of the current and anticipated effects of climate-related risks and opportunities on the issuer’s business model and value chain. Specifically, the issuer shall disclose: 發行人須披露讓人了解氣候相關風險和機遇對其業務模式和價值鏈的當前和預期影響的信息。具體而言，發行人須作如下披露：</p> <p>(a) a description of the current and anticipated effects of climate-related risks and opportunities on the issuer’s business model and value chain; and (a)描述氣候相關風險和機遇對發行人的業務模式和價值鏈的當前和預期影響；及</p> <p>(b) a description of where in the issuer’s business model and value chain climate related risks and opportunities are concentrated (for example, geographical areas, facilities and types of assets). (b)描述在發行人的業務模式和價值鏈中，氣候相關風險和機遇集中的地方（例如，地理區域、設施及資產類型）。</p>	73-81
Strategy and decision-making 策略和決策		
Para-graph 22 第22段	<p>An issuer shall disclose information that enables an understanding of the effects of climate related risks and opportunities on its strategy and decision-making. Specifically, the issuer shall disclose: 發行人須披露讓人了解氣候相關風險和機遇對其策略和決策的影響的信息。具體而言，發行人須披露：</p> <p>(a) information about how the issuer has responded to, and plans to respond to, climate-related risks and opportunities in its strategy and decision-making, including how the issuer plans to achieve any climate-related targets it has set and any targets it is required to meet by law or regulation. Specifically, the issuer shall disclose information about: (a)有關發行人已經及將來計劃在其策略和決策中如何應對氣候相關風險和機遇的信息，包括發行人計劃如何實現任何其所設置的氣候相關目標，以及任何法律或法規要求達到的目標。具體而言，發行人須披露以下信息：</p> <p>(i) current and anticipated changes to the issuer’s business model, including its resource allocation, to address climate-related risks and opportunities; (i)因應氣候相關風險和機遇而在當前及預期將來對發行人業務模式（包括資源配置）作出的變動；</p> <p>(ii) current and anticipated adaptation and mitigation efforts (whether direct or indirect); (ii)已經或預期將進行的任何適應或減緩工作（直接或間接）；</p> <p>(iii) any climate-related transition plan the issuer has (including information about key assumptions used in developing its transition plan, and dependencies on which the issuer’s transition plan relies), or an appropriate negative statement where the issuer does not have a climate-related transition plan; and (iii)發行人任何與氣候相關轉型計劃（包括制定轉型計劃時使用的主要假設的信息，以及該計劃所依賴的因素），或若發行人並未有這樣的計劃，則作適當的否定聲明；</p> <p>(iv) how the issuer plans to achieve any climate-related targets (including any greenhouse gas emissions targets (if any)), described in accordance with paragraphs 37 to 40; and (iv)發行人計劃如何實現任何氣候相關目標（包括任何溫室氣體排放目標（如有））；及</p> <p>(b) information about how the issuer is resourcing, and plans to resource, the activities disclosed in accordance with paragraph 22(a). (b)有關發行人當前及將來計劃如何為根據第22(a)段披露的行動提供資源。</p>	71、82

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Para-graph 23 第23段	An issuer shall disclose information about the progress of plans disclosed in previous reporting periods in accordance with paragraph 22(a). 發行人須披露先前各匯報期內按照第22(a)段所披露計劃的進度。	NA
Financial position, financial performance and cash flows 財務狀況、財務表現及現金流量		
Para-graph 24 第24段	Current financial effect 當前財務影響 An issuer shall disclose qualitative and quantitative information about: 發行人須披露以下定性和量化資料: (a) how climate-related risks and opportunities have affected its financial position, financial performance and cash flows for the reporting period; and (a) 氣候相關風險和機遇如何影響發行人在匯報期的財務狀況、財務表現及現金流量; 及 (b) the climate-related risks and opportunities identified in paragraph 24(a) for which there is a significant risk of a material adjustment within the next annual reporting period to the carrying amounts of assets and liabilities reported in the related financial statements. (b) 當存在將導致下一匯報年度相關財務報表中的資產和負債賬面價值發生重要調整的重大風險時, 關於識別的氣候相關風險和機遇的信息。	78-81
Para-graph 25 第25段	Anticipated financial effect 預期財務影響 The issuer shall provide qualitative and quantitative disclosures about: 發行人須披露以下定性和量化資料: (a) how the issuer expects its financial position to change over the short, medium and long term, given its strategy to manage climate related risks and opportunities, taking into consideration: (a) 發行人經考慮其管理氣候相關風險和機遇的策略後, 並考慮到其投資及處置計劃、其為實施策略所需的資金的計劃資金來源後, 預期其財務表現在短期、長期內將如何變化: (i) its investment and disposal plans; and (i) 其投資計劃; 及 (ii) its planned sources of funding to implement its strategy; and (ii) 其為實施策略所需的資金的計劃資金來源; 及 (b) how the issuer expects its financial performance and cash flows to change over the short, medium and long term, given its strategy to manage climate related risks and opportunities. (b) 基於發行人管理氣候相關風險和機遇的策略, 其預計其財務業績及現金流量在短期、中期及長期的變化。	78-81
Climate resilience 氣候韌性		
Para-graph 26 第26段	An issuer shall disclose information that enables an understanding of the resilience of the issuer's strategy and business model to climate-related changes, developments and uncertainties, taking into consideration the issuer's identified climate related risks and opportunities. An issuer shall use climate-related scenario analysis to assess its climate resilience using an approach that is commensurate with an issuer's circumstances. In providing quantitative information, the issuer may disclose a single amount or a range. Specifically, the issuer shall disclose: 在考慮發行人已識別的氣候相關風險和機遇後, 發行人須披露信息, 使他人了解發行人的策略及業務模式對氣候相關變化、發展或不確定性的韌性。發行人須按與其情況相稱的做法, 使用與氣候相關的情景分析來評估其氣候韌性。提供量化信息時, 發行人可披露單一數額或區間範圍。具體而言, 發行人須披露:	78-81

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Para-graph 26 第26段	<p>(a) the issuer's assessment of its climate resilience as at the reporting date, which shall enable an understanding of:</p> <p>(a) 發行人截至匯報日對其氣候韌性的評估，其有助於了解：</p> <p>(i) the implications, if any, of the issuer's assessment for its strategy and business model, including how the issuer would need to respond to the effects identified in the climate related scenario analysis;</p> <p>(i) 發行人的分析結果對其策略和業務模式的影響（如有），包括發行人需要如何應對氣候相關情景分析中確定的影響；</p> <p>(ii) the significant areas of uncertainty considered in the issuer's assessment of its climate resilience; and</p> <p>(ii) 發行人對氣候韌性的評估中考慮的重大不確定因素的範圍；及</p> <p>(iii) the issuer's capacity to adjust, or adapt its strategy and business model to climate change over the short, medium or long term;</p> <p>(iii) 發行人根據氣候發展調整其短期、中期和長期策略和業務模式的能力；</p> <p>(b) how and when the climate-related scenario analysis was carried out, including:</p> <p>(b) 如何及何時進行氣候相關情景分析，包括：</p> <p>(i) information about the inputs used, including:</p> <p>(i) 使用的輸入數據，包括：</p> <p>(1) which climate-related scenarios the issuer used for the analysis and the sources of such scenarios;</p> <p>(1) 發行人在分析中使用的氣候相關情景及其來源；</p> <p>(2) whether the analysis included a diverse range of climate-related scenarios;</p> <p>(2) 分析是否涵蓋多種不同的氣候相關情景；</p> <p>(3) whether the climate-related scenarios used for the analysis are associated with climate related transition risks or climate-related physical risks;</p> <p>(3) 分析所使用的氣候相關情景是否與氣候相關轉型風險或氣候相關物理風險有關；</p> <p>(4) whether the issuer used, among its scenarios, a climate-related scenario aligned with the latest international agreement on climate change;</p> <p>(4) 發行人在其情景中是否使用了與最新氣候變化國際協議相一致的情景；</p> <p>(5) why the issuer decided that its chosen climate-related scenarios are relevant to assessing its resilience to climate-related changes, developments or uncertainties;</p> <p>(5) 發行人為何認為所選擇的氣候相關情景與評估其氣候相關變化、發展或不確定性的韌性相關；</p> <p>(6) time horizons the issuer used in the analysis; and</p> <p>(6) 發行人在分析中所使用的時間範圍；及</p> <p>(7) what scope of operations the issuer used in the analysis (for example, the operation, locations and business units used in the analysis);</p> <p>(7) 發行人分析所涵蓋的運營範圍（例如分析所涵蓋的運營地點及業務單位）；</p> <p>(ii) the key assumptions the issuer made in the analysis; and</p> <p>(ii) 發行人在分析中所作的關鍵假設；及</p> <p>(iii) the reporting period in which the climate-related scenario analysis was carried out.</p> <p>(iii) 進行氣候相關情景分析的匯報期。</p>	73-81
Aspect: Risk Management 層面：風險管理		
Para-graph 27 第27段	<p>An issuer shall disclose information about:</p> <p>發行人須披露以下信息：</p> <p>(a) the processes and related policies it uses to identify, assess, prioritize and monitor climate-related risks, including information about:</p> <p>(a) 發行人用於識別、評估氣候相關風險，以及釐定其中輕重緩急並保持監察的流程及相關政策，包括有關以下方面的信息：</p> <p>(i) the inputs and parameters the issuer uses (for example, information about data sources and the scope of operations covered in the processes);</p> <p>(i) 發行人使用的輸入資料及參數（例如資料來源及程序所涵蓋的業務範圍）；</p> <p>(ii) whether and how the issuer uses climate-related scenario analysis to inform its identification of climate related risks;</p> <p>(ii) 發行人可有及如何使用氣候相關情景分析來識別氣候相關風險；</p> <p>(iii) how the issuer assesses the nature, likelihood and magnitude of the effects of those risks (for example, whether the issuer considers qualitative factors, quantitative thresholds or other criteria);</p> <p>(iii) 發行人如何評估有關風險的影響的性質、可能性及程度（例如發行人可有考慮定性因素、量化門檻或其他所用標準）；</p>	74-81

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Para-graph 27 第27段	<p>(iv) whether and how the issuer prioritizes climate-related risks (iv) 發行人可有及如何就氣候相關風險相對於其他類型風險的優次排列;</p> <p>(v) how the issuer monitors climate related risks; and (v) 發行人如何監察其氣候相關風險; 及</p> <p>(vi) whether and how the issuer has changed the processes it uses compared with the previous reporting period; (vi) 與上一個匯報期相比, 發行人可有及如何改變其使用的流程;</p> <p>(b) the processes the issuer uses to identify, assess, prioritize and monitor climate-related opportunities (including information about whether and how the issuer uses climate-related scenario analysis to inform its identification of climate-related opportunities); and (b) 發行人用於識別、評估氣候相關機遇, 以及確定其中輕重緩急並保持監察的流程 (包括發行人可有及如何使用氣候相關情景分析來確定氣候相關機遇的信息); 及</p> <p>(c) the extent to which, and how, the processes for identifying, assessing, prioritizing and monitoring climate-related risks and opportunities are integrated into and inform the issuer's overall risk management process. (c) 氣候相關風險和機遇的識別、評估、優次排列和監察流程, 是如何融入發行人的整體風險管理流程, 以及融入的程度如何。</p>	74-81
Aspect: Metrics and Targets 層面: 指標和目標		
Greenhouse gas emissions 溫室氣體排放		
Para-graph 28 第28段	<p>An issuer shall disclose its absolute gross greenhouse gas emissions generated during the reporting period, expressed as metric tons of CO₂ equivalent, classified as: 發行人須披露匯報期內的溫室氣體絕對總排放量 (以公噸二氧化碳當量表示), 並分為:</p> <p>(a) Scope 1 greenhouse gas emissions; (a) 範圍1溫室氣體排放; (b) Scope 2 greenhouse gas emissions; and (b) 範圍2溫室氣體排放; 及 (c) Scope 3 greenhouse gas emissions (c) 範圍3溫室氣體排放。</p>	72
Para-graph 29 第29段	<p>An issuer shall: 發行人須:</p> <p>(a) measure its greenhouse gas emissions in accordance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004) unless required by a jurisdictional authority or another exchange on which the issuer is listed to use a different method for measuring greenhouse gas emissions; (a) 除非管轄機關或發行人上市之另一交易所另有要求, 否則發行人須根據《溫室氣體核算體系: 企業核算與報告標準 (2004年)》計量其溫室氣體排放;</p> <p>(b) disclose the approach it uses to measure its greenhouse gas emissions including: (b) 披露其用於計量溫室氣體排放的方法, 包括:</p> <p>(i) the measurement approach, inputs and assumptions the issuer uses to measure its greenhouse gas emissions; (i) 發行人用於計量其溫室氣體排放的計量方法、輸入資料及假設;</p> <p>(ii) the reason why the issuer has chosen the measurement approach, inputs and assumptions it uses to measure its greenhouse gas emissions; and (ii) 發行人為何選擇該計量方法、輸入資料及假設計量溫室氣體排放; 及</p> <p>(iii) any changes the issuer made to the measurement approach, inputs and assumptions during the reporting period and the reasons for those changes; (iii) 發行人在匯報期對計量方法、輸入資料及假設進行的任何變更以及變更原因;</p> <p>(c) for Scope 2 greenhouse gas emissions disclosed in accordance with paragraph 28(b), disclose its location-based Scope 2 greenhouse gas emissions, and provide information about any contractual instruments that is necessary to enable an understanding of the issuer's Scope 2 greenhouse gas emissions; and (c) 就根據第28(b)段披露的範圍2溫室氣體排放, 披露其以地域為基礎的範圍2溫室氣體排放, 並提供有助於了解該排放的任何所需合同文書的信息; 及</p> <p>(d) for Scope 3 greenhouse gas emissions disclosed in accordance with paragraph 28(c), disclose the categories included within the issuer's measure of Scope 3 greenhouse gas emissions, in accordance with the Scope 3 categories described in the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011). (d) 就根據第28(c)段披露的範圍3溫室氣體排放, 依據《溫室氣體核算體系: 企業價值鏈 (範圍3) 核算與報告標準 (2011年)》所述的範圍3類別披露發行人計量範圍3溫室氣體排放中包含的類別。</p>	72

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Climate-related transition risks 氣候相關轉型風險		
Para-graph 30 第30段	An issuer shall disclose the amount and percentage of assets or business activities vulnerable to climate-related transition risks. 發行人須披露容易受氣候相關轉型風險影響的資產或業務活動的金額及百分比。	NA
Climate-related physical risks 氣候相關物理風險		
Para-graph 31 第31段	An issuer shall disclose the amount and percentage of assets or business activities vulnerable to climate-related physical risks. 發行人須披露容易受氣候相關物理風險影響的資產或業務活動的金額及百分比。	NA
Climate-related opportunities 氣候相關機遇		
Para-graph 32 第32段	An issuer shall disclose the amount and percentage of assets or business activities aligned with climate-related opportunities. 發行人須披露涉及氣候相關機遇的資產或業務活動的金額及百分比。	NA
Capital deployment 資本運用		
Para-graph 33 第33段	An issuer shall disclose the amount of capital expenditure, financing or investment deployed towards climate-related risks and opportunities. 發行人須披露用於氣候相關風險和機遇的資本開支、融資或投資的金額。	NA
Internal carbon prices 內部碳定價		
Para-graph 34 第34段	An issuer shall disclose: (a) an explanation of whether and how the issuer is applying a carbon price in decision-making (for example, investment decisions, transfer pricing, and scenario analysis); and (b) the price of each metric tonne of greenhouse gas emissions the issuer uses to assess the costs of its greenhouse gas emissions; or an appropriate negative statement that the issuer does not apply a carbon price in decision making. 發行人須披露如下：(a) 闡釋發行人可有及如何在決策中應用碳定價（例如投資決策、轉移定價及情景分析）；及(b)發行人用於評估其溫室氣體排放成本的每公噸溫室氣體排放量定價，或適當的否定聲明，確認發行人沒有在決策中應用碳定價。	NA
Remuneration 薪酬		
Para-graph 35 第35段	An issuer shall disclose whether and how climate-related considerations are factored into remuneration policy, or an appropriate negative statement. 發行人須披露氣候相關考慮因素可有及如何納入薪酬政策，或提供適當的否定聲明。	NA
Industry-based metrics 行業指標		
Para-graph 36 第36段	An issuer is encouraged to disclose industry based metrics that are associated with one or more particular business models, activities or other common features that characterize participation in an industry. In determining the industry-based metrics that the issuer discloses, an issuer is encouraged to refer to and consider the applicability of the industry-based metrics associated with disclosure topics described in the IFRS S2 Industry-based Guidance on implementing Climate-related Disclosures and other industry-based disclosure requirements prescribed under other international ESG reporting frameworks. 本交易所鼓勵發行人披露與一項或多項特定的業務模式和活動有關的行業指標，或與參與有關行業常見特徵有關的行業指標。在決定披露哪些行業指標時，本交易所鼓勵發行人參考《〈國際財務報告可持續披露準則S2號〉行業披露指南》和其他國際環境、社會及管治報告框架規定的行業披露要求所述的與披露主題相關的行業指標，並考慮其是否適用。	65-66、72、 94-97

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Climate-related targets 層面: 氣候相關目標		
Para-graph 37 第37段	<p>An issuer shall disclose (a) the qualitative and quantitative climate-related targets the issuer has set to monitor progress towards achieving its strategic goals; and (b) any targets the issuer is required to meet by law or regulation, including any greenhouse gas emissions targets. For each target, the issuer shall disclose:</p> <p>發行人須披露(a)其為監察實現其策略目標的進展而設定的與氣候相關的定性及量化目標; 及(b)法律或法規要求發行人達到的任何目標, 包括任何溫室氣體排放目標。發行人須就每個目標逐一披露:</p> <p>(a) the metric used to set the target; (a) 用以設定目標的指標;</p> <p>(b) the objective of the target (for example, mitigation, adaptation or confor (b) 目標的目的 (例如減緩、適應或以科學為基礎的舉措) ;</p> <p>(c) the part of the issuer to which the target applies (for example, whether the target applies to the issuer in its entirety or only a part of the issuer, such as a specific (c) 目標的適用範圍 (例如目標是適用於發行人整個集團還是部分 (如僅適用於某個業務單位或地域區域)) ;</p> <p>(d) the period over which the target applies; (d) 目標的適用期間;</p> <p>(e) the base period from which progress is measured; (e) 衡量進度的基準期間;</p> <p>(f) milestones or interim targets (if any); (f) 階段性目標或中期目標 (如有) ;</p> <p>(g) if the target is quantitative, whether the target is an absolute target or an intensity target; and (g) 如屬量化目標, 其屬絕對目標還是強度目標; 及</p> <p>(h) how the latest international agreement on climate change, including jurisdictional commitments that arise from that agreement, has informed the target. (h) 最新氣候變化國際協議 (包括該協議產生的司法承諾) 如何說明發行人設定目標。</p>	50、71
Para-graph 38 第38段	<p>An issuer shall disclose information about its approach to setting and reviewing each target, and how it monitors progress against each target, including:</p> <p>發行人須披露其設定及審核每項目標的方法, 以及其如何監察達標進度, 包括:</p> <p>(a) whether the target and the methodology for setting the target has been validated by a third party; (a) 目標本身及設定目標的方法是否經第三方驗證;</p> <p>(b) the issuer's processes for reviewing the target; (b) 發行人審核目標的程序;</p> <p>(c) the metrics used to monitor progress towards reaching the target; and (c) 用於監察達標進度的指標; 及</p> <p>(d) any revisions to the target and an explanation for those revisions. (d) 任何修訂目標的內容及原因。</p>	NA
Para-graph 39 第39段	<p>An issuer shall disclose information about its performance against each climate-related target and an analysis of trends or changes in the issuer's performance.</p> <p>發行人須披露有關每項氣候相關目標的績效的信息以及對發行人績效的趨勢或變化分析。</p>	NA
Para-graph 40 第40段	<p>For each greenhouse gas emissions target disclosed in accordance with paragraphs 37 to 39, an issuer shall disclose:</p> <p>就按第37至39段披露的每一項溫室氣體排放目標, 發行人須披露:</p> <p>(a) which greenhouse gases are covered by the target; (a) 目標涵蓋哪些溫室氣體;</p> <p>(b) whether Scope 1, Scope 2 or Scope 3 greenhouse gas emissions are covered by the target; (b) 目標是否涵蓋範圍1、範圍2或範圍3溫室氣體排放;</p> <p>(c) whether the target is a gross greenhouse gas emissions target or a net greenhouse gas emissions target. If the issuer discloses a net greenhouse gas emissions target, the issuer is also required to separately disclose its associated gross greenhouse gas emissions target; (c) 此目標是溫室氣體排放總量目標還是溫室氣體排放淨額目標。如為溫室氣體排放淨額目標, 發行人須另外披露相關的溫室氣體排放總量目標;</p> <p>(d) whether the target was derived using a sectoral decarbonization approach; and (d) 目標是否是採用行業脫碳方法得出的; 及</p>	NA

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Para-graph 40 第40段	<p>(e) the issuer's planned use of carbon credits to offset greenhouse gas emissions to achieve any net greenhouse gas emissions target. In explaining its planned use of carbon credits, the issuer shall disclose:</p> <p>(e) 發行人計劃使用碳信用抵消溫室氣體排放以實現任何溫室氣體排放淨額目標。關於使用碳信用的計劃，發行人須披露：</p> <p>(i) the extent to which, and how, achieving any net greenhouse gas emissions target relies on the use of carbon credits;</p> <p>(i) 依賴使用碳信用以實現任何溫室氣體排放淨額目標的程度及方式；</p> <p>(ii) which third-party scheme(s) will verify or certify the carbon credits;</p> <p>(ii) 該碳信用將由哪些第三方計劃驗證或認證；</p> <p>(iii) the type of carbon credit, including whether the underlying offset will be nature-based or based on technological carbon removals, and whether the underlying offset is achieved through carbon reduction or removal; and</p> <p>(iii) 碳信用的類型，包括相關抵消是否是基於自然還是基於科技的碳消除，以及相關抵消是通過減碳還是碳消除實現；及</p> <p>(iv) any other factors necessary to enable an understanding of the credibility and integrity of the carbon credits the issuer plans to use (for example, assumptions regarding the permanence of the carbon offset).</p> <p>(iv) 為讓人了解發行人計劃使用的碳信用的可信度和完整性所必要的任何其他重要因素（例如，對碳抵消效果的假設）。</p>	NA

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Other Titles 其他稱謂說明

Description of References 稱謂指代		
XLX Group,We, and the Group 心連心集團、我們、本集團	China XLX Fertiliser Ltd. and its subsidiaries 中國心連心化肥有限公司及其附屬公司	
China XLX Fertiliser 中國心連心化肥	China XLX Fertiliser Ltd. 中國心連心化肥有限公司	The Listed Company 上市主體
Henan XLX 河南心連心	Henan Xinlianxin Chemicals Group CO., LTD. 河南心連心化學工業集團股份有限公司	Some subsidi- aries of China XLX Fertiliser Ltd. 中國心連心化 肥有限公司部 份附屬公司
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Intelligent Equipment Company 智能裝備公司	Henan Xinlianxin Intelligent Equipment Technology CO., LTD. 河南心連心智能裝備科技有限公司	Main pro- duction and operation bases主要的生 產運營基地
the four production bases 四大基地	Xinxiang Base in Henan, Manas Base in Xinjiang, Jiujiang Base in Jiangxi, Guangxi Base 河南新鄉基地、新疆瑪納斯基地、江西九江基地、廣西基地	

Feedback from Readers

讀者意見反饋

Thank you for reading the China XLX Fertiliser Ltd. 2024 Environmental, Social and Governance Report. In order to provide you and other stakeholders with more valuable information and to facilitate China XLX Fertiliser Ltd. to improve its ESG management capabilities and standards, we sincerely welcome your comments and suggestions on the report and feedback to us through the following means: Email: ir@chinaxlx.com.hk

感謝您閱讀《中國心連心化肥有限公司 2024 年環境、社會及管治報告》。為了向您及其他利益相關方提供更有價值的信息，促進心連心集團提升 ESG 管理能力和水平，本集團衷心歡迎您對報告提出意見建議，並通過郵箱：ir@chinaxlx.com.hk 反饋給本集團。

1. Which of the following categories of stakeholders do you belong to?

1. 您屬以下哪類利益相關方？

- ☐ Consumers 客戶
 ☐ Government and regulatory bodies 政府及監管機構
 ☐ Employees 員工
 ☐ Shareholders and investors 股東 / 投資人
- ☐ Partners (suppliers and distributors) 合作夥伴 (如供應商 / 承銷商)
 ☐ Media 媒體
 ☐ Community 社區
- ☐ Public welfare organizations and industry associations 公益組織 / 行業協會
 ☐ Other _____ 其他 _____

2. Do you feel that this report fully reflects China XLX's environmental, social and governance performance?

2. 您認為本報告是否全面反映了心連心集團在環境、社會及管治方面的表現？

- ☐ yes 是
 ☐ fair 一般
 ☐ no 否

3. Do you think this report has fully responded to the expectations and demands of China XLX's stakeholders?

3. 您認為本報告是否能夠全面地回應心連心集團利益相關方的期望和要求？

- ☐ yes 是
 ☐ fair 一般
 ☐ no 否

4. Do you think the quantitative information disclosed in this report is objective, true and effective?

4. 您認為本報告的定量信息披露是否客觀、真實、有效？

- ☐ yes 是
 ☐ fair 一般
 ☐ no 否

5. Do you consider the presentation of this report to be clear and easy to understand?

5. 您認為本報告的文字表述是否條理清晰、通俗易懂？

- ☐ yes 是
 ☐ fair 一般
 ☐ no 否

6. Do you think the layout of this report helps you understand the relevant information?

6. 您認為本報告的版式設計是否有助於您對相關信息的理解？

☐ yes
是

☐ fair
一般

☐ no
否

7. What you would like to know that is not disclosed in this report.

7. 您希望了解但未在本報告中披露的內容。

8. What other comments and suggestions do you have on China XLX's ESG management and ESG report?

8. 您對心連心集團 ESG 管理工作和 ESG 報告還有哪些意見和建議？



中国心连心化肥



心连心

China XLX Fertiliser Ltd.
中國心連心化肥有限公司*

(Incorporated in Singapore with limited liability)
(於新加坡註冊成立之有限公司)

Stock Code 股份代號: 1866

* For identification purposes only 僅供識別