



菱生精密工業股份有限公司

# 2025 年永續報告書

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# 01 高層承諾

## 1.1 經營者的話

2025 年，全球正邁入一個 AI 賦能的世界，人工智慧不僅運用於資料中心，未來也將普遍應用在個人電腦、智慧型手機、汽車及物聯網設備中。觀察近期發展態勢，在景氣回溫、IC 生產鏈庫存重建，以及人工智慧相關的需求大幅增加下，預期未來數年半導體市場將邁入健康增長週期。但中美 AI 霸權競逐持續，地緣政治的不確定性仍在。

面對即將加速的市場變革與科技升級，本公司也做好迎接的準備。公司將在現有穩健成長的基礎上持續扎根，繼續進行投資以支持客戶結構性的成長，結合與各領域合作夥伴之緊密合作，共同邁向 AI 賦能新時代。

### ■ 經濟與經營發展

在經營面我們致力於本業，不斷在技術上創新，以節能、減廢與綠色封裝理念發展新產品，改良舊產品，偕同供應商夥伴共同提升品質、降低成本並獲得客戶支持與讚賞。

### ■ 環境永續

本公司致力於提升各項能資源之利用效率並興建強化相關環境保護處理設施，以避免污染水、空氣與土地，同時採行最佳且可行的污染防治和控制技術措施，在環境永續方面，我們將氣候變遷、水及能資源管理議題視為企業的挑戰與機會，持續朝著節電、省水、減碳、減廢之目標努力邁進。

本公司新建之廠房於 2015 年 1 月取得 LEED 美國綠建築協會之銀級認證，是一項重要且值得稱許的成果。2019 年更進一步取得 SONY Green Partner 更新證書。

### ■ 社會關懷

本公司在追求成長與獲利的同時更不忘致力於提供人性化與安全工作環境的建構與維護以善盡本公司之社會責任，具體成果包含產學合作計畫、淨山淨路活動，成立慈益社共同參與社區活動、關懷鄰里，改善員工、社區之生活品質，促進以企業責任為本之競爭優勢，為企業永續發展而努力。

# 02

## 永續發展

### 2.1 企業永續委員會主任委員的話

菱生精密乃半導體封裝業先驅，自 1973 年創立至今，跨越 50 周年，我們不僅用心追求核心業務穩健發展，秉持「經濟共享、與環境共生、與社會共榮」的願景，以實踐聯合國 SDGs 17 項全球性永續發展目標（參閱附件）以及聯合國全球盟約十項原則（參閱附件）。

氣候環境變遷全球暖化持續嚴重，菱生也秉持著企業與地球共好的願景，在追求獲利成長的同時亦兼顧企業公民的責任，在環境、社會議題持續不斷關注。菱生持續展現對於綠色產品與生產製程減碳的重視，致力於廢棄物與廢水的回收再利用，於 2025 年共回收 880.598 噸廢棄物及 584,096 噸廢水，不僅達到落實環保也節省成本。另外菱生積極推動生產用電綠能使用佔比，於 2015 年 10 月於菱生中港廠完成 483KW 太陽能發電系統，發電至 2025 年 12 月 31 日，已提供 6,954,290KW 綠電，同樣為環境保護盡一份心力。在公益活動方面，同仁發起每月訂購伊甸基金會烘焙商品，提供身心障礙者工作機會幫助身障者更容易融入社會。

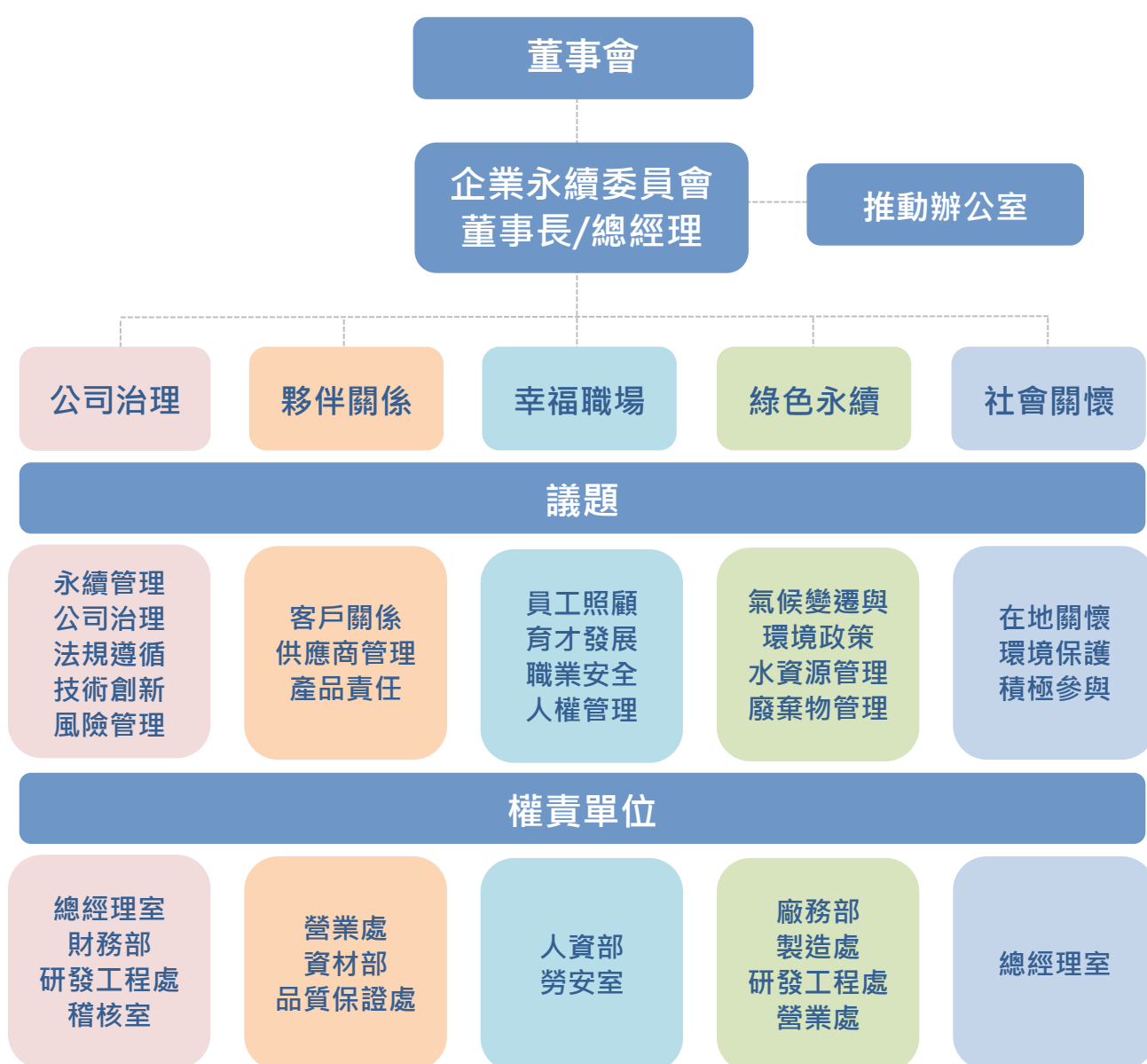
為了實踐企業永續經營的理念，菱生深耕於「企業治理、企業承諾、社會參與、環境保護」四大企業社會責任領域，實踐 ESG 於營運中，為環境累積綠色能量，為永續未來創造共享價值。



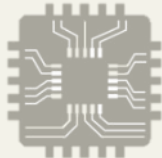
## 2.2 企業永續發展推行組織

菱生精密於 2013 年成立「企業永續委員會」，包含公司治理、夥伴關係、幸福職場、綠色永續以及社會關懷等五個議題，永續發展委員會代表由公司「總經理」擔任，永續發展團隊就經濟面向、環境面向及社會面向等三大構面進行永續議題彙整，每年向高階管理階層報告永續發展管理系統的執行績效及改進建議行動需求。

為實踐企業社會責任並促成經濟、環境及社會之進步，以達永續發展之目標，由總經理室統籌彙整呈報企業永續發展年度推行成果與下一年度的工作計畫，讓永續發展成為公司決策中的一環。



## 2.3 永續績效總覽

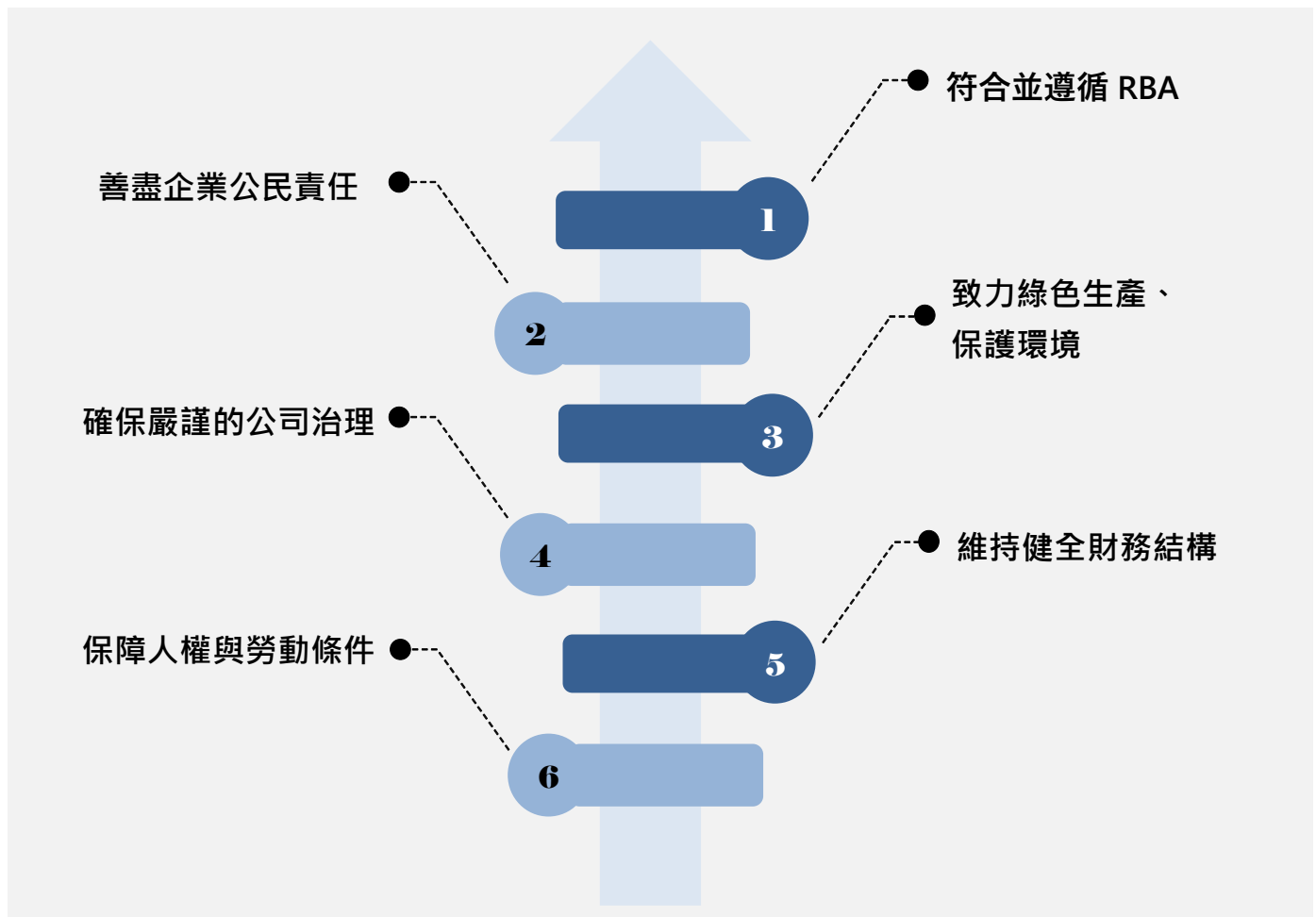
| 面 向                                                                                       | 內 容                                                                                                                                   |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <br>經濟   | <p>營收 \$ / 2025 年營收達新台幣 <b>48.38</b> 億元</p> <p>研發投入 / 2025 年研發投入新台幣 <b>0.81</b> 億元</p> <p>人均產值 / 2025 年人均產值新台幣 <b>2,087,547</b> 元</p> |
| <br>環境 | <p>廢棄物回收 / 共回收 <b>880.598</b> 噸</p> <p>節約能源 / 共節約 <b>6,784,000</b> 度電</p> <p>廢水回收 / 共計回收廢水 <b>584,096</b> 噸</p>                       |
| <br>社會 | <p>產學合作 / 連續 <b>20</b> 年與科大產學合作<br/>提供就業與學習並進機會</p> <p>公益活動 / 長期支持伊甸基金會-<br/><b>慢飛天使烘焙商品</b></p> <p>長期支持 / 長期支持 <b>信望愛發票箱</b></p>     |

## 2.4 永續發展策略

菱生公司身為全球市場公民的成員，秉持誠信務實、永續經營理念，致力於履行全球企業公民的責任，持續不斷創新與提升產品生產能力，協助客戶生產出更優良的產品，與供應商一同努力提升原物料價值與品質，進而創造更美好的生活環境。

菱生公司為了實踐企業永續經營的理念，善盡企業社會公民的責任，關懷我們的生活環境，珍惜地球上有限的資源，主動配合責任商業聯盟行為準則 RBA ( Responsible Business Alliance ) 的各項要求及聯合國全球盟約十項原則，以確保顧及人權、照顧勞工、工作環境安全、反貪腐、環境保護等各職志目標。

### ■ 永續發展策略面向



## 2.5 菱生企業永續政策

### 菱生精密工業股份有限公司

Lingsen Precision Industry, Ltd

#### 企業永續政策

#### Corporate Sustainability Policy

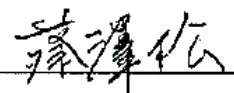
菱生精密工業股份有限公司乃半導體封裝業先驅，我們不僅用心追求核心業務穩健發展，秉持「經濟共享、環境共生與社會共榮」的願景。本公司提供員工友善、人道、安全工作環境，致力環境保護、崇尚誠信廉潔、遵循台灣適用之法令法規、RBA 行為準則，並承諾：

As a pioneer of Semiconductor Assembly Industry, Lingsen not only make our effort to pursue steady development to core business but also uphold the vision of "co-existence of economy and environment and social co-prosperity." Lingsen provide friendly, humane and safe working place, and have been committed to protect environment, advocate integrity and honesty, abide by the laws and regulations and code of conduct of RBA, and promise to:

- 提倡人權，禁用童工、不使員工遭受歧視、霸凌等不人道對待  
Advocate Human Rights, Prohibit child laborers, Protect employees from inhumane treatment such as discrimination and bullying.
- 合法合理之工時與報酬  
Offer legal and reasonable working hour and salary.
- 嚴守商業道德倫理規範，維持良好公司治理  
Observe the code of Business ethics and maintain well corporate governance.
- 符合政府及國際相關法規並持續追求改善進步  
Abide by related Government and International laws and regulations, and keep making improvement.
- 提供員工安全健康的工作環境及合理的薪資與福利  
Provide employees with safe and healthy working environment and reasonable salary and benefits.
- 提倡環保愛地球活動、減少污染與碳排放，致力社會公益  
Promote eco-friendly activities, Reduce pollution and carbon emission, and Be Committed to charitable and public welfare.
- 教育員工，使其了解並支持公司善盡企業社會責任  
Impart CSR (Corporate Social Responsibility) to employees to get their recognition and support.
- 不直接或間接採購來自衝突地區之鉭、錫、鎢、金、鈷、雲母  
Not purchase directly or indirectly the Conflict Minerals such as Ta (Tantalum), Sn (Tin), W (Tungsten), Au (Gold), Cobalt (Co), and Mica.
- 與客戶、供應商溝通交流企業社會責任，彼此學習、共同進步  
Interchange CSR (Corporate Social Responsibility) with customers and suppliers to learn from each other and make common progress.

菱生精密工業股份有限公司  
Lingsen Precision Industry, Ltd

總經理 General manager



### 3.1 環境管理

菱生公司自 1998 年 10 月起推行環境管理系統 ( ISO14001 ) 將環境保護視為與生產及品質同樣重要之管理項目。蔡澤松總經理更宣示菱生公司環境政策將以「綠能與環保產品生產，遵守適用法令規章，節能減廢污染預防，持續改善永續經營」此四大要點為依歸，並輔以環境管理系統 ISO-14001 相關規定，要求菱生全體員工以 PDCA 手法針對所有廠房進行環境管理。總經理亦指示將持續執行公司內部環境稽核工作，定期檢查空氣、廢水、噪音及廢棄物對環境造成之衝擊，不斷檢討生產耗用資源並進行節能改善，以期菱生公司可在生產品質與周遭環境求得平衡共生共榮。

在全球暖化及氣候變遷之環境議題之下，各國紛紛宣示 2050 年淨零減碳之長期目標，菱生亦於 2023 年宣布公司環境目標分別訂定節能、減碳、節水等短中長期目標，致力於因應氣候變遷、減緩氣候衝擊帶來之風險外，將以實際行動落實環境永續之政策，以保護我們共享的全球環境。

### ■ 菱生公司環境政策

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                 |           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-----------|
|                                                                                                                                                                                                                                                                                                                                                                                                               | 菱生精密工業股份有限公司<br>Lingsen Precision Industry, Ltd | 日期：108.07 |
| <b>環境政策</b><br><b>Environmental Policy</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                 |           |
| 本人以書面正式宣示，本公司之環境政策如下：<br>I declared the environmental policy of our company by official document as follows:                                                                                                                                                                                                                                                                                                                                                                                     |                                                 |           |
| 菱生及其子公司為從事半導體封裝測試之企業，除了致力於本業的成長，在環境系統之污染控制已獲得良好成效後，我們將秉持一貫之傳統，於本公司之活動、產品或服務中更進一步地進行能源節約、資源保育及良好環境的維持及改善，為達成上述目標，並基於回饋社會的企業文化，我們將致力於：                                                                                                                                                                                                                                                                                                                                                             |                                                 |           |
| Lingsen and its worldwide branches are working in the assembly and test business. Besides the growth of business, the pollution controlled of the environment system also got good effect. We will take the same traditional way and promote further to save energy, protect resource, maintain and improve the good environment. For above objectives and contribution of the society, we will devote to:                                                                                       |                                                 |           |
| 1. 綠能環保產品生產。Manufacture the products of green energy and environmental protection.<br>2. 遵守適用法令規章。Compliance with applicable laws and regulations.<br>3. 節能減廢污染預防。Save energy, reduce waste and prevent pollutions.<br>4. 持續改善永續經營。Continual improvement, achieving sustainable management.                                                                                                                                                                                                      |                                                 |           |
| 本公司對環境管理系統之運作負全部之責任並提供必要的資源，同時各部門主管應給予必要的協助，提供環境考量調查評估資訊，並以環境政策為導向，經由環境管理委員會訂定年度環境目標與標的，且須確保本公司之環境系統相關資訊為全體員工所了解、實施與維持，且向社會大眾公開。                                                                                                                                                                                                                                                                                                                                                                 |                                                 |           |
| For the operation of environmental management system, we do our duty and supply necessary resources. According to the environment policy, every top manager of the departments shall provide the inspection and evaluation of environment aspect, the environment management committee will establish annual environmental objectives and targets to make sure the relevant information will be known, executed, maintained by every employee. And the information will be opened to the public. |                                                 |           |
| 總經理 General manager:                                                                                                                                                                                                                                                                                                                                                                                         |                                                 |           |
| 公佈時間：108.07<br>Announce Time: 108.07                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                 |           |
| *註：公佈期間請勿拆除，公佈後由環境管理委員會回收存檔。<br>*ps. Please do not remove the bulletin in this period. Environmental Management Committee will recovery this bulletin after announcement.                                                                                                                                                                                                                                                                                                                        |                                                 |           |

Rev. 9

菱生公司有感於氣候變遷對台灣的影響，於 2023 年環境管理階層審查會議針對節能減碳等議題進行討論，會議中蔡澤松總經理同意以 2021 年為基準年並設定減碳、節能目標，2030 年短期減碳目標為 10%，2040 年中期減碳目標為 50%，並於 2050 年達成碳中和目標；節能目標短期為 2030 年前節能 10%，2050 年前節能 40%。另該會議亦設定要求每年節水需達 40 萬公噸以上，以保護台灣珍貴水資源。

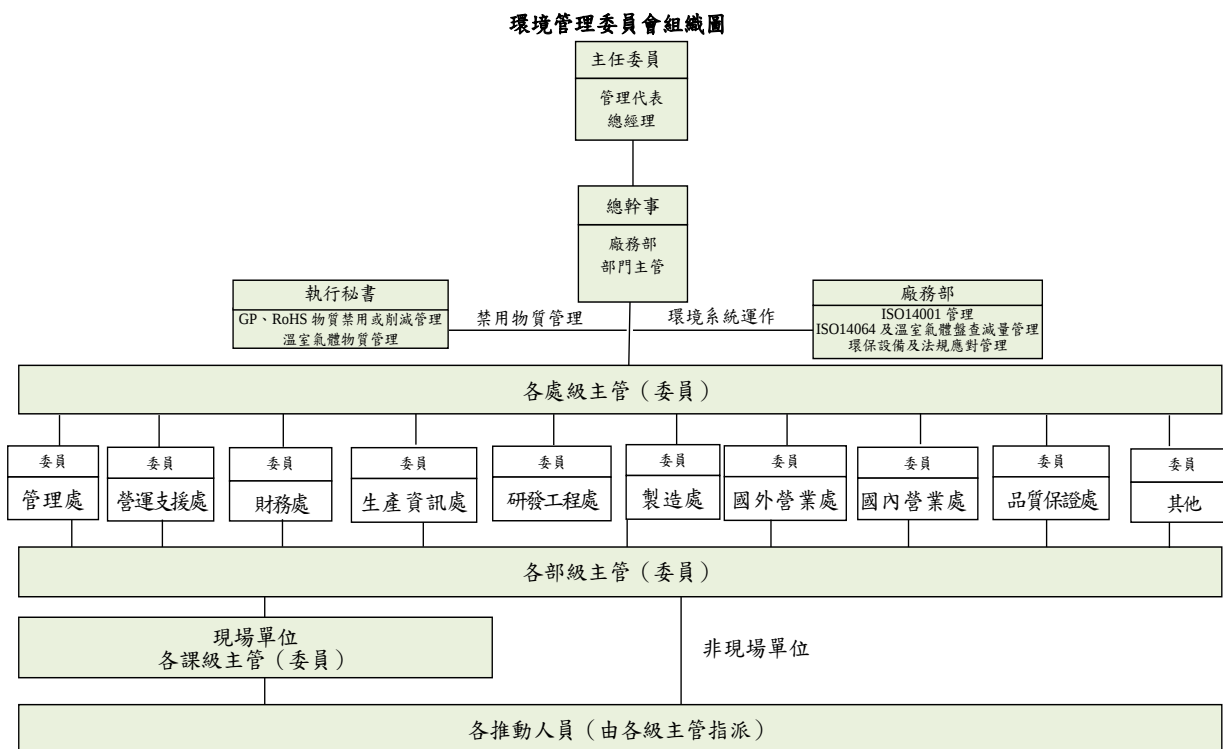
## ■ 菱生公司環境目標



## ■ 環境管理委員會組織架構

菱生公司共計有五棟生產基地及一棟原物料倉庫，所有生產大樓均由總經理主持之環境管理委員會統一進行管理，各單位主管為當然委員。每年總經理召集所有單位主管進行環境目標檢討會議，檢討前一年度發生之環保事件及環境目標之完成情形，針對發生的缺失影響進行討論，並訂定當年度環境目標標的，責成相關廠別單位及主管應負責之執行方案進行管理與追蹤，此外各單位主管亦應負責該單位相關環境危害進行評鑑，評鑑出重大環境危害部分則進行專案管理以降低對環境污染之影響。

## 菱生公司環境管理委員會組織架構圖



備註：

- (1) 現場單位 - 委員為處級、部級級課級主管  
非現場單位 - 委員為處級及部級主管
- (2) 現場推動人員 - 為各級主管指派

## 環境管理系統運作狀況及風險管理

菱生公司致力於將環保觀念傳達給公司各單位員工，希望能讓員工於公於私均能為維護地球環境而努力。每年年初召開環境管理委員會，會中邀集各單位主管訂定當年環境目標標的及預定執行項目之管理方案，主要以環保減廢或節約能源等目標，當環境目標標的訂定完成後，由各單位主管宣達至該單位員工，互相學習環境改善方式，以期能共同為公司環保改善努力。

## 2025 年度菱生公司環境目標、標的與管理方案統整表

| 環境政策<br>導 向 | 方案<br>編號 | 環境管理方案                 | 環境目標                                       | 環境標的                          | 權責單位       |
|-------------|----------|------------------------|--------------------------------------------|-------------------------------|------------|
| 節能減廢        | 1401     | 降低產品 A 樹脂報廢量           | 依料況決定開機數，不開機機台之未使用樹脂打包回收使用，以減少樹脂報廢數量。      | 每月報廢量<br>預計降 20%              | 製二部<br>二課  |
| 節能減廢        | 1402     | 降低產品 B 樹脂報廢量           | 讓材料集中作業，以減少樹脂過期報廢數量。                       | 每月報廢量<br>預計降 20%              | 製一部<br>三課  |
| 節能減廢        | 1403     | 廢棄導線架紙箱回收              | 廢棄導線架紙箱定期回收後，供廠商包裝再利用，減少報廢處理費用及環境衝擊。       | 預計每月平均<br>回收數量 100 箱          | 資材<br>物管課  |
| 節能減廢        | 1404     | 空料管回收降低成本及減少資源浪費       | 針對 T5 送測產品，於 T4 完成測試作業後，將空管送回 T5 重覆回收使用。   | 每季節省<br>成本 6,000 元            | 測試部        |
| 節能減廢        | 1405     | 降低模壓站清模導線架耗用量          | 模壓站清模導線架用成型站下腳料替代，降低清模導線架使用量。              | 每月耗用量<br>減少 432 枚             | T5<br>製造二課 |
| 節能減廢        | 1406     | 提升金屬蓋使用率               | 針對已過期的金屬蓋，先進行過期試作、工程試作等程序後，再進行報廢，降低金屬蓋損耗量。 | 金屬蓋使用率<br>平均達 75%             | T6<br>製造二課 |
| 減廢減碳        | 1407     | T1、T2 冰水機組及冰水泵汰舊換新節能減碳 | 更換冰水機組及冰水泵，提升空調系統效能，降低耗電量，以減少電費及 CO2 排放量。  | 年節電量 1,100 千度<br>及減碳量 540 噸以上 | 廠務部        |

菱生公司 ISO14001 驗證證書



## ■ 環境重大風險評估

| 風險面    | 重大風險議題                                                                                                         | 因應作法                                                                                                                                                                                    |
|--------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 法令與政策  | <ol style="list-style-type: none"> <li>1. 環保法規標準逐漸加嚴。</li> <li>2. 能源申報及節能</li> <li>3. 臺中市自制條例要求增加綠電</li> </ol> | <ol style="list-style-type: none"> <li>1. 加強檢測及生產管控，並依據現況增設污染改善設備。</li> <li>2. 提升公司能源設備盤點，每年編列預算執行節能專案。</li> <li>3. 盤點公司廠房面積使用狀況，將公司部分廠房施作太陽能發電系統，提高公司使用綠電佔比。</li> </ol>                |
| 環境資源   | <ol style="list-style-type: none"> <li>1. 因氣候變遷長期末降雨，造成水資源匱乏。</li> <li>2. 廢棄物去化問題</li> </ol>                   | <ol style="list-style-type: none"> <li>1. 列為年度環保專案管理項目，實施製程廢水回收，調整生產用水量，珍惜用水資源。</li> <li>2. 廢棄物資源化，提高廢棄物再利用率及推動供應商包材回收再利用。</li> <li>3. 每年提出環境管理方案，尋求生產製程原物料減量。</li> </ol>               |
| 客戶與供應商 | <ol style="list-style-type: none"> <li>1. 生產原料含國際公約或台灣法令列管物質</li> <li>2. 溫室氣體削減及產品碳足跡</li> </ol>               | <ol style="list-style-type: none"> <li>1. 公司進廠原物料進行樣品檢查，需通過環保單位認可後，方可投入現場進行生產。</li> <li>2. 認證溫室氣體盤查報告 ISO14064-1，並協助客戶產品碳足跡調查。</li> <li>3. 每年投入經費改善，執行綠色採購，以降低溫室氣體排放量。</li> </ol>       |
| 員工及民眾  | <ol style="list-style-type: none"> <li>1. 員工無環保概念，造成環境汙染</li> <li>2. 周邊民眾陳情</li> </ol>                         | <ol style="list-style-type: none"> <li>1. 建立 ISO14001 環境管理系統，將環保工作系統化融入員工日常生活。實施員工環保教育訓練，定期及不定期生產單位環境稽核。</li> <li>2. 設置環境溝通管理系統，建立民眾溝通管道。</li> <li>3. 不定期周邊環境巡檢，降低環境污染對民眾影響。</li> </ol> |

近年來跨國環保條約及政府法令對於企業生產環保要求逐漸加嚴，對於菱生公司既是一項挑戰，也是一個改變的契機。菱生公司亦針對現今產生之環境重大風險進行考量評估，逐項檢討環境風險帶來的影響及機遇，在這些自主及非自主的外在衝擊下，菱生公司期待仍對台灣環境帶來良好的改變。

## ■ 環境風險機會表

| 機會面  | 產生之改變                      | 因應作法                                                                     |
|------|----------------------------|--------------------------------------------------------------------------|
| 綠色能源 | 增加綠電使用占比。<br>改善生產設備能源使用效率。 | 已開發三處太陽能發電系統設置廠址。<br>汰換設備以高效率設備為直接考量因素。                                  |
| 氣候變遷 | 用水取得來源乾旱時期生產因應             | 提高廢水回收系統效率，降低生產對用水之依賴性。<br>設置大型蓄水設施，於水資源充足時期充份蓄水。<br>與槽車廠商進行配合，並納入緊急應變演練 |
| 產品服務 | 綠色產品<br>客戶環保設計服務           | 研發設計持續改善產品效率。<br>加強菱生與客戶間緊密合作，推出綠色產品。                                    |

## 3.2 碳排放管理

溫室氣體暖化導致氣候變遷，異常極端氣候對敏感的生態環境造成巨大的衝擊，為減緩全球暖化效應所帶來之災害，各國紛紛明確訂出淨零減碳時程，我國政府亦於 112 年 1 月三讀通過將《溫室氣體減量及管理法》修正為《氣候變遷因應法》，並納入 2050 年淨零排放的長期目標，展現我國邁向淨零排放目標之決心。

菱生公司基於永續經營之理念與善盡企業社會責任之義務，積極致力於溫室氣體排放盤查及管制，於 2010 年正式成立溫室氣體盤查與自願減量推動組織後，由總經理發佈溫室氣體盤查與自願減量宣言並期望能達成節約能源，維護全球生態環境之永續發展。

## ■ 菱生公司溫室氣體盤查與自願減量宣言

### 菱生精密工業股份有限公司

### 溫室氣體盤查與自願減量

### 宣 言

我們深知地球的氣候與環境，正因遭受溫室氣體的影響而逐漸的變化中，並了解地球環境之涵容能力有其限度，並非是無限的，而我們正朝著這個涵容能力之臨界點逼近。為善盡地球公民及企業責任，本公司將努力完成下列事項：

- ◎ 持續進行溫室氣體盤查
- ◎ 確實掌握溫室氣體之排放狀況
- ◎ 提升機組設備效率，降低溫室氣體排放量

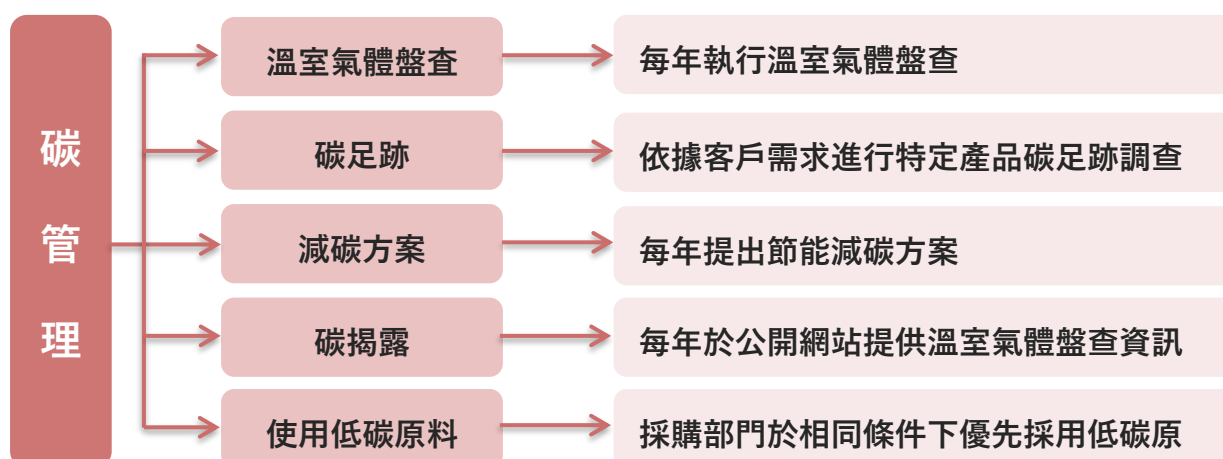
總經理：



中華民國 108 年 7 月 23 日

經由總經理發佈政策聲明宣言，成立溫室氣體盤查與自願減量推動組織，公司將該推動組織職能納入環境管理委員會合併執行，在 2010 年 7 月召開碳排放相關減量會議，會議中認為應先了解公司溫室氣體排放狀況後，方能對症下藥進行溫室氣體排放減量，總經理宣佈決議自 2010 年起每年定期執行組織性溫室氣體盤查作業，並要求需依據 ISO14064 溫室氣體盤查標準執行查證，由外部查證單位認證確認當年度溫室氣體排放量及主要造成溫室氣體排放來源後，採取適當措施以改善公司溫室氣體排放情形。2021 年菱生公司於碳足跡調查部分亦已逐步展開，目前主要為提供客戶可順利取得於公司封裝過程所有原物料碳排放資訊，並提供客戶針對單一產品進行碳足跡調查，協助客戶了解生產所需資訊。

## ■ 菱生公司碳管理方式



## ■ 溫室氣體盤查

菱生自 2009 年開始導入溫室氣體盤查制度，迄今已完成 17 個年度（2009～2025）之溫室氣體盤查作業，並於 2022 年通過 ISO 14604-1：2018 改版認證。為使盤查結果獲得預期使用者之認同，所有盤查作業與文件均遵照國際標準 ISO 14064-1 要求執行，並於盤查完成後進行內、外部查證作業。目前溫室氣體盤查邊界範圍包含臺灣台中廠 T1、台中廠 T2、台中廠 T4、台中廠 T5、中港廠 T6 及 T3 原物料倉庫和中港廠 T6 宿舍。菱生公司近五年類別一及類別二之溫室氣體盤查資料如下：

## ■ 2021~2025 年溫室氣體排放量

| 年度   | 類別一        | 類別二                             | 溫室氣體總量(公噸)                      |
|------|------------|---------------------------------|---------------------------------|
| 2021 | 1,846.7307 | 65,725.4404                     | 67,572.1711                     |
| 2022 | 1,750.4530 | 63,035.3240                     | 64,785.7770                     |
| 2023 | 1,690.9313 | 59,980.8035                     | 61,671.7348                     |
| 2024 | 1,495.8513 | 56,271.0235<br>(location-based) | 57,766.8748<br>(location-based) |
|      |            | 56,197.0795<br>(market-based)   | 57,692.9308<br>(market-based)   |
| 2025 | 1,587.6330 | 52,957.5332<br>(location-based) | 54,545.1662<br>(location-based) |
|      |            | 53,898.9878<br>(market-based)   | 55,486.6208<br>(market-based)   |

在 2025 年菱生公司盤查計算結果統計，類別一為溫室氣體直接排放部份，包含固定燃燒源、製程排放源、移動燃燒源、逸散性溫室氣體排放源，排放量為 1,587.6330 公噸 CO<sub>2</sub>e / 年。類別二為能源間接溫室氣體排放部分，來自於輸入的電力、熱、蒸汽或其他化石燃料衍生能源所產生之溫室氣體排放，其排放量為 52,957.5332 公噸 CO<sub>2</sub>e / 年 (location-based approach) 佔總排放量 78.06%，為菱生溫室氣體排放的主要來源；若考慮所購買的綠電憑證 (market-based approach) 其類別二的排放量為 53,898.9878 公噸 CO<sub>2</sub>e / 年。類別三~五則屬其他間接溫室氣體排放，主要針對委外活動產生的其他間接排放，排放來源包括員工出差、委外運輸 (包括原料樹脂、廢棄物)、原物料 (樹脂) 採購、能源採購、下游廢棄物固化/物理處理/焚化處理及客戶租賃使用所產生之溫室氣體排放等，其排放量為 13,295.9617 公噸 CO<sub>2</sub>e / 年。

若不考量其他間接排放部分 (類別三至五)，類別二能源間接溫室氣體排放量佔比則可達 97.09%。因此，執行節約能源、提昇設備能源效率及廢棄物減量為公司目前達成溫室氣體減量目標之主要方向，同時也可藉此降低長期之營運成本。

2025 年溫室氣體排放量與 2024 年相比略為下降，分析其主要原因為 (1) 空調設備汰舊換新、(2) 廠內積極推行節能措施、(3) 能源署在 2025 年所公告之電力碳係數較往年低，皆為造成 2025 年排碳量減少之原因。

## ■ 2021~2025 年菱生公司用電量

| 年份      | 2021 年    | 2022 年    | 2023 年    | 2024 年    | 2025 年    |
|---------|-----------|-----------|-----------|-----------|-----------|
| 總用電量(度) | 131067128 | 127515756 | 121583950 | 119078412 | 116346108 |

因溫室氣體排放與能源使用息息相關，公司為能更有效率管理能源使用，已開始規劃導入 ISO50001 能源管理系統驗證，目前已派遣多名人員前往進行能源管理人員教育訓練，並已取得能源管理人員資格證書，希望能藉由 ISO50001 能源管理系統進行能源規劃，設定能源使用基準，建立能源使用政策及推動改善措施，使菱生公司能源使用可在 ISO 管理核心 P-D-C-A 方式下持續不斷改善。

# 2024 年 ISO14064 溫室氣體盤查驗證證書

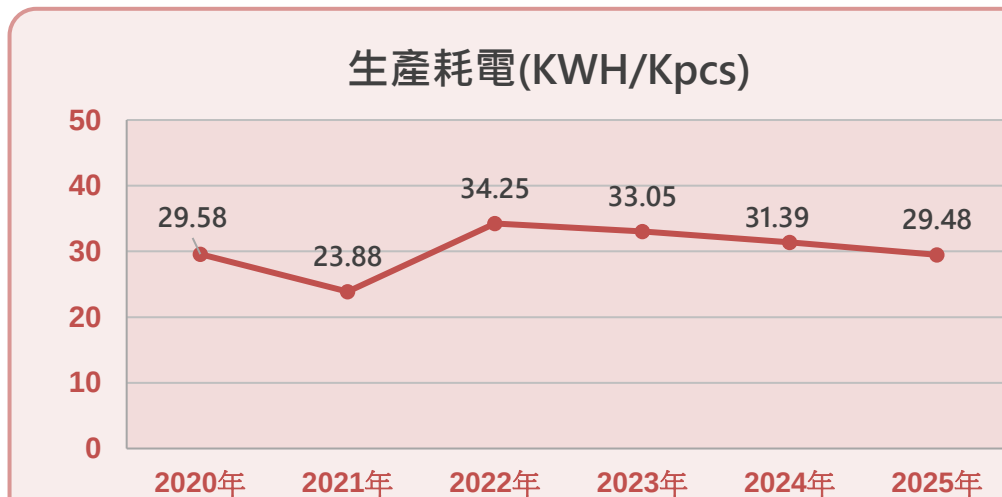
| <div>   </div> <h1>Opinion Statement</h1> <p><b>Greenhouse Gas Emissions</b><br/>Verification Opinion Statement</p> <p>This is jointly by:</p> <div> <div>  <p>Lapcon Precision Industries, Ltd.<br/>No. 5, South 2nd Road<br/>Taidi Dist.<br/>Taichung City<br/>42202<br/>Taiwan</p> </div> <div>  <p>英国标准协会<br/>BSI<br/>389, Market Street<br/>Lancaster LA1 1YR<br/>UK</p> </div> </div> <p>Have Statement No. GHGX123456</p> <p>Verification activity assessed:</p> <p>As a result of carrying out verification and validation procedures in accordance with ISO 14064-3:2020, it is the intention for the issued verification certificate to demonstrate compliance with the verification activity, as well as additional and agreed-upon requirements (AUP) covered by the following:</p> <ul style="list-style-type: none"> <li>The Greenhouse Gas Emissions with Upper Precision Industries, Ltd. for the period from 2024-01-01 to 2024-12-31 was verified and validated.</li> <li>The Greenhouse Gas Emissions with Upper Precision Industries, Ltd. for the period from 2024-01-01 to 2024-12-31 was verified and validated.</li> <li>Lapcon Precision Industries, Ltd. has defined and implemented its own process and procedures to ensure compliance with the Greenhouse Gas Emissions and quantity and quality requirements identified accordingly.</li> </ul> <p><i>Opti.</i></p> <p>For and on behalf of BSI:</p> <p>Signature: [Signature] Title: Verifier, Peter Hu<br/>Lancaster, United Kingdom, 2025-07-28</p> <p>Page 1 of 4</p> <p>...making excellence a habit™</p> <p>The BSI Group is a registered charity in England and Wales (No. 3096318) and in Scotland (No. SC045033). It is a company limited by guarantee in England and Wales (No. 02070848) and in Scotland (No. SC045033). The BSI Group is a member of the British Standards Institution (BSI) and is a member of the International Organization of Standardization (ISO).</p> | <p>Statement No. GHGX123456</p> <p>Greenhouse gas emissions verification</p> <p>The Greenhouse Gas Emissions verification activities are based on reasonable level of assurance:</p> <ul style="list-style-type: none"> <li>The data and information of greenhouse gas emissions are based on historical data and records, and no material amendments for the period from 2024-01-01 to 2024-12-31 Greenhouse Gas Emissions calculation were made.</li> <li>The quality and reliability of greenhouse gas emissions in meeting the principles set out in ISO 14064-3:2020.</li> <li>The emission factor for electricity of year 2024 is 0.474 kg CO<sub>2</sub>e/kWh, per kWh.</li> </ul> <table border="1"> <thead> <tr> <th>EMISSIONS</th><th>Notes</th><th>Amount CO<sub>2</sub>e</th></tr> </thead> <tbody> <tr> <td>Category 1 Greenhouse Gas Emissions and Intensity</td><td></td><td>1,408,661.01</td></tr> <tr> <td>1.1 Electricity consumption</td><td></td><td>1,732.0</td></tr> <tr> <td>1.2 Water consumption</td><td></td><td>105,265.0</td></tr> <tr> <td>1.3 Land use change and forestry</td><td></td><td>0.0</td></tr> <tr> <td>1.4 Fugitive emissions from operations</td><td></td><td>1,282,604.0</td></tr> <tr> <td>1.5 Land use change and forestry</td><td></td><td>0.0</td></tr> <tr> <td>Category 2 Greenhouse Gas Emissions from purchased goods</td><td></td><td>2,647,162.0</td></tr> <tr> <td>2.1 Indirect emissions from purchased goods</td><td></td><td>2,647,162.0</td></tr> <tr> <td>2.2 Indirect emissions from purchased goods</td><td></td><td>105,265.0</td></tr> <tr> <td>2.3 Indirect emissions from purchased goods</td><td></td><td>105,265.0</td></tr> <tr> <td>2.4 Indirect emissions from purchased goods</td><td></td><td>105,265.0</td></tr> <tr> <td>2.5 Indirect emissions from purchased goods</td><td></td><td>105,265.0</td></tr> <tr> <td>2.6 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| Category 1 Greenhouse Gas Emissions and Intensity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| 1.1 Electricity consumption                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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| 1.2 Water consumption                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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| 1.3 Land use change and forestry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       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| 1.4 Fugitive emissions from operations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| 1.5 Land use change and forestry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       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| Category 2 Greenhouse Gas Emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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| 2.1 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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| 2.2 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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| 2.3 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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                             |  |           |                                              |  |           |                                              |  |  |
| 2.4 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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                             |  |           |                                              |  |           |                                              |  |  |
| 2.5 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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                             |  |           |                                              |  |           |                                              |  |  |
| 2.6 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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                             |  |           |                                              |  |           |                                              |  |  |
| 2.7 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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| 2.8 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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| 2.9 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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                             |  |           |                                              |  |           |                                              |  |  |
| 2.10 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.11 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.12 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.13 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.14 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.15 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.16 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.17 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.18 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.19 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.20 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.21 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.22 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.23 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.24 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.25 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.26 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.27 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.28 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.29 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.30 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| 2.31 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| 2.32 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.33 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.34 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.35 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.36 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.37 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.38 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| 2.39 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.40 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.41 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.42 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.43 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.44 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.45 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.46 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| 2.47 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| 2.48 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.49 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.50 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.51 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.52 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.53 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.54 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.55 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.56 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.57 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.58 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.59 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.60 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.61 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.62 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| 2.63 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.64 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| 2.65 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| 2.66 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.67 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| 2.68 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| 2.69 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| 2.70 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| 2.71 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| 2.72 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                             |  |           |                                              |  |           |                                              |  |  |
| 2.73 Indirect emissions from purchased goods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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     |  |           |                                             |  |           |                                             |  |           |                                             |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |           |                                              |  |  |

# 2025 年 ISO14064 溫室氣體盤查驗證證書

[illegible]

## 生產節能減碳方案推動及再生能源發展

| 年份                 | 2020 年 | 2021 年 | 2022 年 | 2023 年 | 2024 年 | 2025 年 |
|--------------------|--------|--------|--------|--------|--------|--------|
| 生產耗電<br>(KWH/Kpcs) | 29.58  | 23.88  | 34.25  | 33.05  | 31.39  | 29.48  |



菱生公司有感於企業生產對社會環境資源之耗損，每年要求員工腦力激盪提出生產製程節能減碳方案，並不斷針對公司生產效率進行改善，及邀請工業研究院、綠基會及環興公司等專家協助診斷公司內部生產設備運轉狀況提出改善機會，責成生產現場主管進行督導管理。除推行節能減碳方案，菱生公司更要求現場生產設備，所需要電力、空壓、真空及排氣設備等耗能在不影響生產品質條件下進行調降。經計算 2025 年菱生公司共計節約能源 678.4 萬度/年，降低 CO2 排放量 3,351.2 公噸/年，降低 2025 年全年 CO2 排放量共計 5.8%。以下為 2024 年至 2025 年菱生公司執行節能方案狀況。

## ■ 2024 年至 2025 年菱生公司節能減量方案

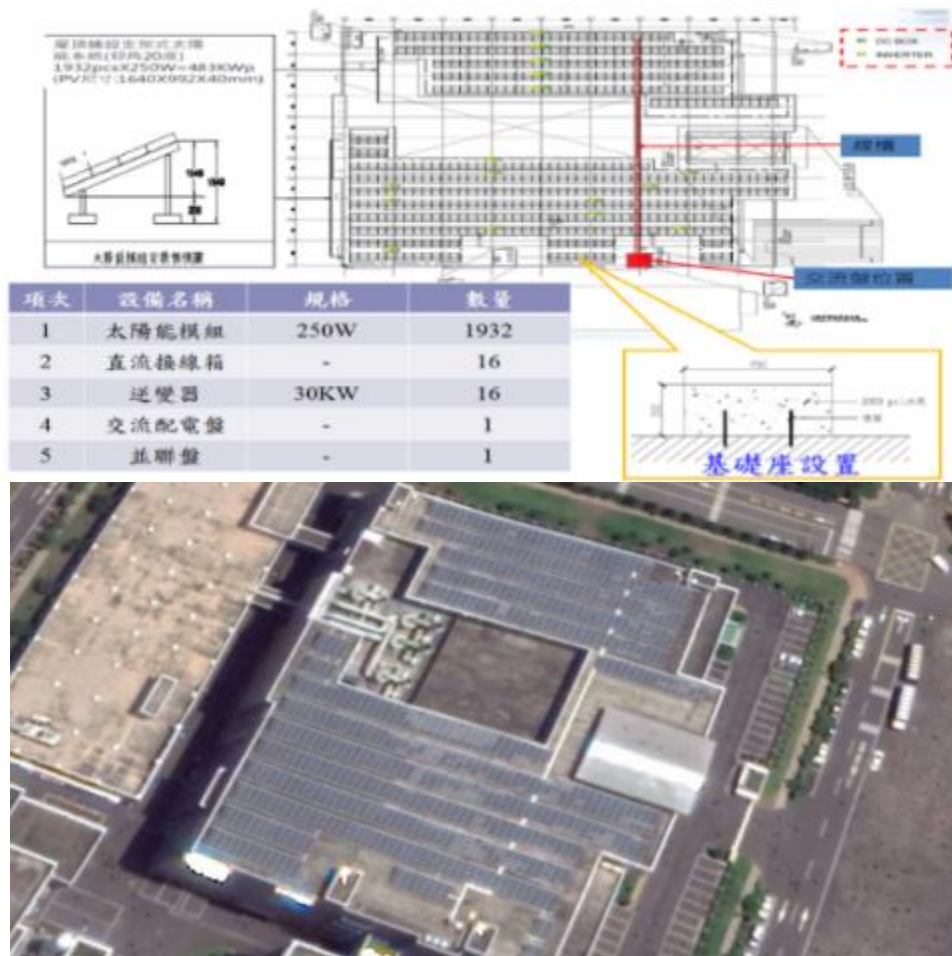
2024 年至 2025 年本公司提出空調冰水主機及冷卻水、循環泵汰換專案，已完成更換 2 部高效率冰水主機及多部冷卻水、循環泵，經實際驗證 2025 年節電 678.4 萬度、減碳 3,351.2 噸 CO2 當量，並節省 3,005 萬以上電費。

2026 年本公司經濟部能源署節能績效保證專案，將針對空壓機進行節能汰換，預計本次空壓機汰換可於 2027 年 3 月完成，年節電量將達 100 萬度以上。

因有感於溫室氣體對地球環境及氣溫影響逐漸加大，菱生公司積極推動生產用電綠能使用佔比，於 2015 年 10 月於菱生中港廠完成 483KW 太陽能發電系統，發電至 2025 年 12 月 31 日，已提供 6,954,290KW 綠電。

| 節能改善結果 | 空壓電力(KWH)   | 產能耗(KWH/KPCS) |
|--------|-------------|---------------|
| 2023 年 | 121,583,950 | 33.05         |
| 2024 年 | 119,078,412 | 31.39         |
| 2025 年 | 116,346,108 | 29.48         |

## ■ 菱生中港廠 483KW 太陽能發電設計圖/空拍圖



## ■ 菱生中港廠太陽能發電系統空拍圖

2019 年初菱生公司更與加工出口區管理處臺中分處合作，將菱生 T1 位於臺中潭子區南二路 5-1 號共同用地承租予太陽能廠商興建太陽能發電系統，總設置發電容量為 278.16KW。

## ■ 菱生 T1 278.16KW 太陽能發電系統空拍圖



2022 年菱生公司與園區內廠商公司共同合作，將菱生 T3 位於臺中潭子區建國路 3 號共同用地承租予太陽能廠商興建太陽能發電系統，總設置發電容量為 252KW，已於 2022 年 6 月正式發電。目前菱生公司開發綠電容量總計達 761.16KW，綠能開發量已達總體用電量 6.14%（與台電用電契約容量相比）。

### ■ 菱生 T3 252KW 太陽能發電系統空拍圖



## 3.3 綠色產品

本公司因應全球環境保護之趨勢與需求，致力於提供卓越的環保、安全與衛生的解決方案，在產品製程中摒棄使用有害材料，完全採用符合歐盟所制訂的 RoHS（危害物質限用指令）標準，製品定期送樣至 SGS 機構，滿足 RoHS 指定的無鹵素限值要求之材料。

除傳統封裝產品外，堆疊技術、多晶片模組、系統封裝，與 MEMS 元件封裝等技術已成熟量產中；其中 MEMS 元件因輕、薄、短、小且具備感知、運算和動作等多功能，應用層面廣泛，市場需求極具潛力；本公司目前量產 MEMS 加速器、陀螺儀、壓力計、MEMS 麥克風元件等皆是市場成長主力產品。且因應歐盟的「廢電機電子設備指令 (WEEE 指令)」、「危害物質限用指令 (RoHS 指令)」和「能源使用產品生態化設計指令 (EuP 指令)」等綠色環保指令要求，本公司已導入綠色生產，致力於環保構裝，且於 APQP 之製程設計階段加入環境考量審核流程，以提昇原料使用效率並減少環境污染物質為原則。目前菱生產品之標

準 BOM 已全面導入綠色產品 ( 客戶特殊產品需求除外 ) ，所使用之基板、樹脂皆採用無鹵素之材料。最近年度研發成果如下：

- (1).功率元件模組封裝測試，含粗細鋁打線與 Clip Bonding
- (2).手機/行動裝置用環境光學感測模組封裝測試
- (3). MEMS 感應模組封裝(如 MEMS 加速度計、陀螺儀、壓力計、高度計、胎壓計、MEMS 麥克風...)。
- (4).多功能 MEMS Module 封裝
- (5).小型化光感應 Sensor 封裝
- (6).多功能光電感應 Module 封裝
- (7).Power Module IGBT(450A/1200V)封裝
- (8).QFN 0.3mm 薄形化封裝
- (9).Flip Chip on QFN/TSOT 封裝
- (10).脈搏偵測器 Sensor 封裝
- (11).血氧濃度感測 Sensor 封裝
- (12).堆疊式麥克風(Lamination )封裝
- (13).Power module MOSFET 100V/100A 封裝
- (14).多種厚度 light sensor 封裝
- (15).低功率模組 IPM/SPM 封裝
- (16).MIS Like 封裝
- (17).Water Proof Pressure Sensor 封裝
- (18).智慧門鎖辨識感測 Sensor 封裝
- (19).TWS 光感 Sensor 封裝
- (20).Thermal pile 溫度 Sensor 封裝
- (21).MEMS Auto Focus Sensor 封裝
- (22).碳化矽二極體分離式元件 TO 封裝
- (23).MEMS Speaker 封裝
- (24).皮膚感測器(Skin Sensor)封裝

除持續開發符合市場需求之新產品，於開發產品設計時加入是否有機會進行原料減量、使用再生原料及節能設計等綠色規劃評估，並致力於持續不斷改善，提昇產品效能與降低物料損耗。

近年來由於環境的破壞日益嚴重，國際上對於環保問題越來越重視，如何降低碳排放量已成為各國努力的焦點，汽車造成的二氧化碳等廢氣排放是溫室效應的元兇。另一方面，全球石油存量有限，過度開採已造成國際能源問題，因此電動車的技術發展已成為國際重視的課題。本公司於 2012 年 9 月至 2014 年 9 月參與經濟部業界科專-車用大電流 IGBT 功率模組封裝技術開發計畫，與工研院技術合作，本計畫研發之大電流高電壓絕緣柵雙極電晶體功率模組為電動車與油電混合車之關鍵零組件，除電動車馬達控制模組的主要應用外，亦可應用於驅動車窗、空調、車燈等車用不同電流需求的功率模組。

因應 2020 年全球強制減碳新規定啟動，藉由碳化矽功率模組可實現系統驅動節能目標。本公司也於 2015 年底通過經濟部工業局審查，與士林電機合作共同致力於投入-高值化高功率半導體碳化矽功率模組計畫，市場從資訊/消費性到工業用產品，廣泛應用於節能、高頻和高溫電力電子系統，且碳化矽元件可降低矽元件 85%的切換損失，透過電力電子技術，可大幅改善能源轉換效能，是能源短缺和工業設備節能未來的首選。本計劃結案時完成國內第一套全橋式碳化矽功率模組，全程使用無鉛製程製造技術，可提升系統效率，降低能源消耗及碳排放，降低環境危害。

隨著全球環保意識抬頭，這幾年各國政府為達到碳中和、淨零碳排，紛紛訂定淘汰燃油車的時間表，為了符合政策上的規範，車廠在傳統燃油車領域的成本無形的增高，進一步促使各家車廠加速進入電動車領域。而 SiC/GaN 將是未來電動車之功率元件材料，由於第三代半導體適合用來製作高頻、高壓、高功率、抗輻射之產品，因此可用於車載充電器、快速充電樁和無線充電系統。菱生也於 2022 年因應此需求，將擴大第三代半導體製程產能，並增加車用晶片封裝量能，2025 年已有建置一條工程生產線，積極驗證產品於電動車與其他高壓功率應用中的可行性，未來將持續與客戶密切合作，共同開發具高效能、低損耗的功率模組，不僅強化市場競爭力與產品差異化，也同步推進節能減碳技術，以實際行動支持全球淨零碳排目標，為環境永續盡一份心力。

### 3.4 原物料管理與採購

菱生公司對於主要原物料（例如：黏著材料、金/銅線、基板、導線架、樹脂、上蓋）均需檢附安全資料表(SDS)或成份表，並透過樣品認可程序及通過菱生公司環委會審查核可，始可列入合格原物料進行採購，以符合客戶需求；進料時，菱生公司亦使用 X 射線螢光分析儀(X-ray fluorescence)監測原物料以確保不含環境管制物質。並要求供應商出貨保證書載明符合菱生公司環境管制物質之要求；其次，要求供應商每年需提供第三認證機構（已取得 ISO17025 認證者）之檢測報告(ICP)，確保其原物料不含環境管制物質。並透過【供應商認證資料作業系統】管理其時效性。

#### ■ 菱生公司 2025 進料品質 （2025 檢測結果均符合菱生公司環境物質管制要求）

| XRF 檢測項目 | 黏著材料 | 金/銅線 | 基板  | 導線架  | 樹脂  | 上蓋  |
|----------|------|------|-----|------|-----|-----|
| 2025 批量  | 379  | 292  | 880 | 2416 | 612 | 276 |

同時菱生公司亦定期舉行系統稽核與管理審查活動，以確保符合國際法規與客戶對無有害物質要求，並定期收集並鑑別與產品相關之無有害物質法令（例如：RoHS 及 REACH SVHC...等國際、區域及國家法令），完成供應商及生產單位調查回覆其符合性，確保供應商提供之產品符合無有害物質相關法規要求。

### 3.5 空污及廢棄物回收管理

菱生公司生產製程主要半導體封裝及測試製程，使用之原物料以晶圓、導線架、環氧樹脂為主。為避免於生產過程中造成環境污染，設置有活性碳吸附塔及洗滌塔設備針對空氣污染問題進行處理；廢水部分則將水資源不斷回收再利用至無法使用後，再排放至廢水廠處理；廢棄物則將資源化物質回收再利用，非資源化部分則送交合法處理廠商進行妥善處理，使環境污染有效降低，環境資源可更有效利用。

#### 3.5.1 空氣污染管理

菱生公司生產製程所產生之空氣污染物質主要以揮發性有機物及酸性氣體為主，為求能將空氣污染物質有效削減，採行最佳可行控制技術(BACT)進行有效管理，主要空氣污染防治設備以活性碳吸附塔及洗滌塔為主，並已取得當地環保局固定污染源操作許可證，符合環保法規要求。

## 2025 年度菱生公司法規符合度及自評空氣污染檢測

| 檢測<br>廠別    | 檢測空氣污染物質 ( kg/hr ) |             |          |      |         |      |
|-------------|--------------------|-------------|----------|------|---------|------|
|             | THC                | 硫酸/<br>硫酸液滴 | 磷酸       | 硝酸   | 鹽酸      | Nox  |
| T1          | 0.01               | -           | -        | -    | -       | -    |
| T2          | 0.01               | -           | -        | -    | -       | -    |
| T6          | 0.04               | 0.02        | 0.000988 | 0.01 | 0.00107 | 0.02 |
| 法規標準<br>符合度 | V                  | V           | V        | V    | V       | V    |

菱生公司空氣污染物定期檢測項目為台中廠 T1、T2 需檢測項目為 THC；台中廠 T6 則需檢測 THC、硫酸液滴、硝酸、鹽酸及 NOx 等，以 2025 年檢測資料來看，最高空氣污染物檢測值與固定污染源排放標準及半導體揮發性有機物排放標準進行比對，菱生公司揮發性有機物質遠低於排放標準數十倍以上，酸性氣體（硫酸液滴、硝酸）污染物質遠低於法定排放標準 10 倍以上，顯見菱生公司維護空氣品質之用心。

## 菱生公司空污防制設備圖



### 3.5.2 廢棄物回收及處理

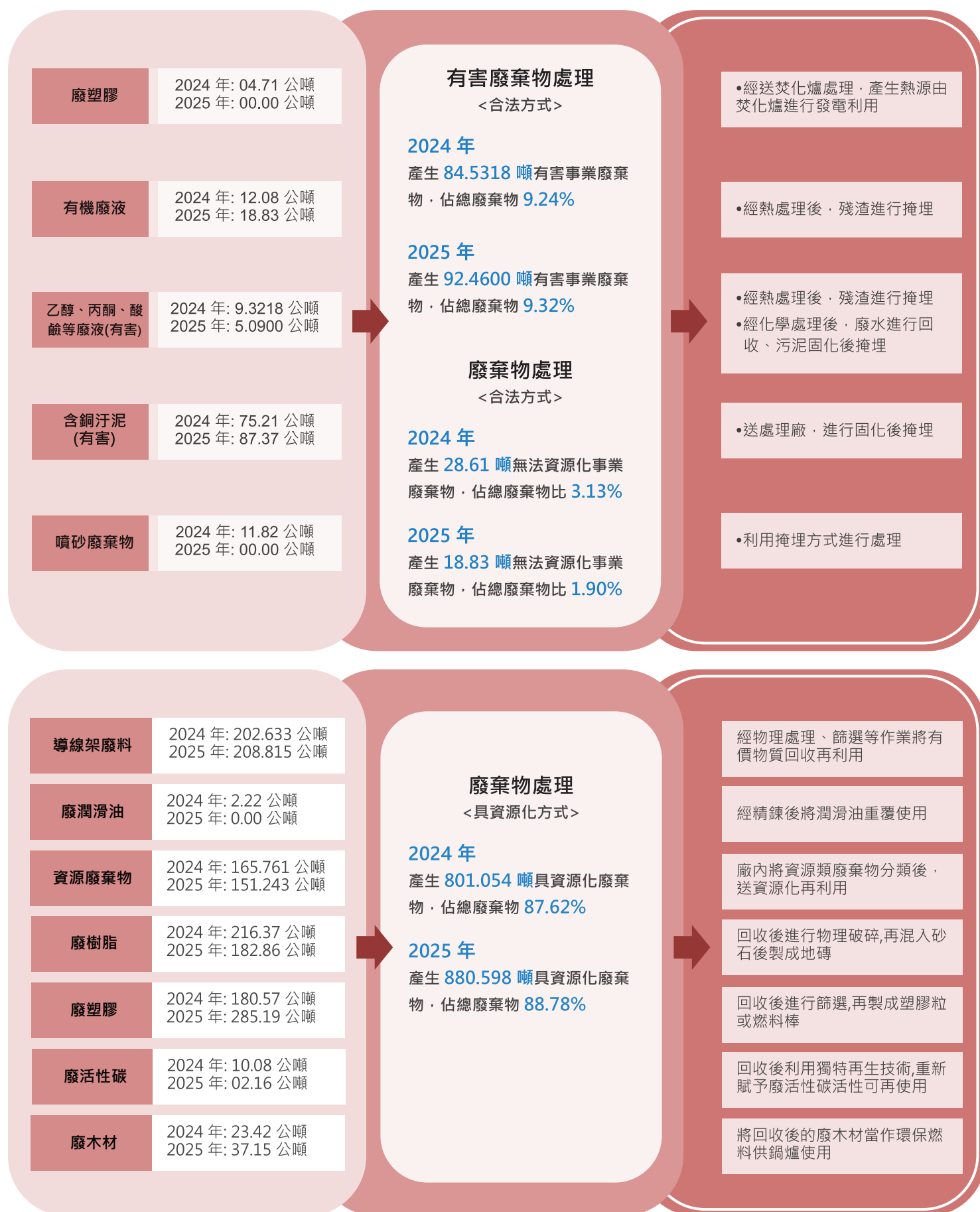
菱生公司廢棄物管理方式已拋棄傳統藉由廢棄物運送至處理廠之處理方式，此管理方式目前為菱生公司產生之廢棄物無法減量、回收再利用之最後手段。菱生公司深知要減少廢棄物產生需由原物料管理做起，因此每年藉由環境管理會議要求生產單位提出現場生產改善方案，原物料用量減少使用，即可減少廢棄物產生。

## 2025 年菱生公司廢棄物減量方案

| 廢棄物減量方案 |                  | 達成效果                                                  |
|---------|------------------|-------------------------------------------------------|
| 1       | 降低產品 A 樹脂報廢量     | 不開機機台未使用樹脂打包回收使用，以減少樹脂報廢數量，平均每月減少報廢 8,478 公斤，降低約 21%。 |
| 2       | 降低產品 B 樹脂報廢量     | 調整作業模式（叫料時間）以減少樹脂過期報廢數量全年減少報廢 12.9 公斤，降低約 33%。        |
| 3       | 廢棄導線架紙箱回收        | 廢棄導線架紙箱回收作為廠商包裝再利用，減少處理費用及環境衝擊，平均每月回收 197.25 個        |
| 4       | 空料管回收降低成本及減少資源浪費 | 將 T5 送測試之產品使用完的空管再送回 T5 進行重覆使用，平均每季可節省成本 9,625 元      |
| 5       | 降低模壓站清模導線架耗用量    | 模壓站清模導線架用成型站下腳料替代，降低清模導線架使用量，平均每月可減少耗用 353 枚          |
| 6       | 提升金屬蓋使用率         | 將已過期的金屬蓋進行過期試作、工程試作後再進行報廢，可將金屬蓋使用率提升至 89.4%           |

因生產過程產生之廢棄物可能造成環境影響，菱生公司盡量與再利用之處理廠商進行合作，希望至少保留廢棄物剩餘價值，降低廢棄物造成之污染。菱生公司每年至少安排兩次以上環保人員至處理廠商稽核，減少廢棄物處理廠商不當處理造成環境污染。

## 2024 年-2025 年菱生公司廢棄物產出量及資源回收情形



## ■ 菱生公司內部資源回收專車



菱生公司為節約自然資源使用、落實資源循環減少廢棄，達成廢棄物產生量最小化與資源回收再利用量最大化，以減輕環境負荷，建立資源永續利用之社會，近年積極與各再利用機構合作將可回收之廢棄物進行再利用處理。自 2020 年 4 月起，菱生將潭子廠區的廢樹脂回收後交由再利用機構再製成高壓混凝地磚，2023 年更將回收計畫推行至梧棲廠區，每年回收的廢樹脂量計有 200-300 公噸。2021 年 7 月起與保麗龍公司合作，將廢棄保麗龍回收再造，每月約可回收 150 公斤廢保麗龍；2021 年 10 月再與再利用機構合作，將廢塑膠進行回收再製成塑膠粒，現每年至少有 350-500 噸的廢塑膠進入再利用管道，大大地提升廢塑膠資源再利用率。

經統計，菱生公司 2025 年共產生 991.888 噸廢棄物，其中共 880.598 噸廢棄物進行資源化處理，約佔廢棄物總量 88.78%，顯見菱生公司對社會資源再利用化之用心。

為持續加強菱生公司廢棄物再利用率，菱生公司亦設有專門資源回收巡迴專車，針對常見資源化廢棄物，如紙類、鋁（鐵）罐、塑膠類等，每日進行廠區內巡迴回收，藉以提升資源再利用。

### 3.6 水資源管理

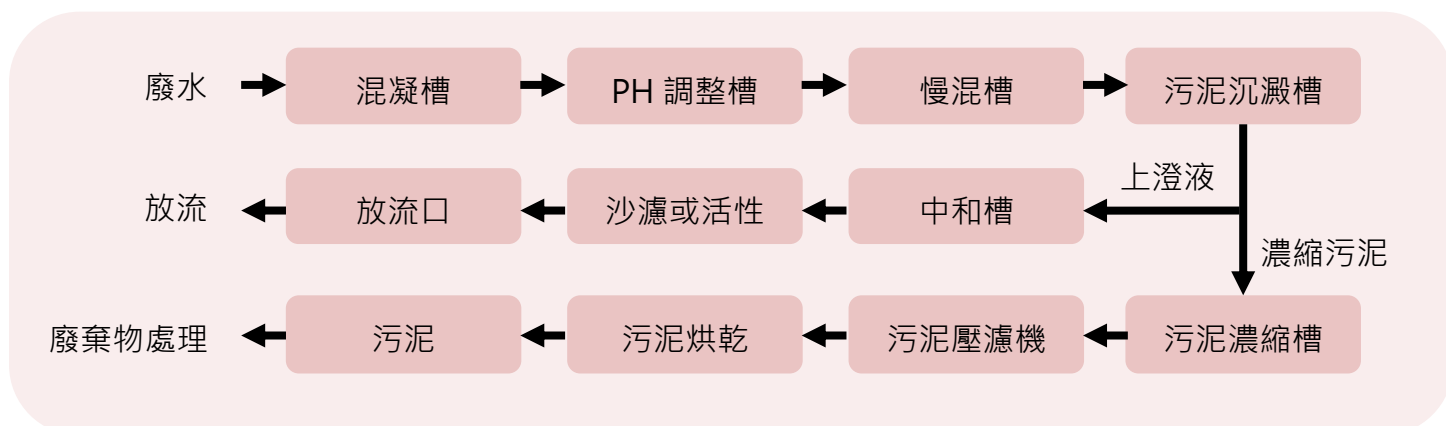
根據研究顯示，隨著近年來全球氣候變遷，臺灣平均溫度近百年來約上升了 1.4 度，氣候暖化導致臺灣豪雨強度增強且集中、乾旱次數也隨之增加，依據中研院模擬數據指出，氣溫每增加 1 度、台灣就會增加 20 天無雨日。雖然臺灣年平均雨量約 2,500 毫米，為全球平均降雨量 880 毫米的三倍，但是實際雨水利用率卻不到 20%，因此水資源的再利用為當前政府面對的困難之一。菱生公司對此極為重視，已全面針對公司水資源進行檢視，並執行多項節水措施，以期能減少對台灣用水資源之影響。下列為本公司 2021 年至 2025 年耗水量狀況：

| 廠別   | T1     | T2     | T3    | T4     | T5     | T6     | 耗水量<br>(千立方公尺) |
|------|--------|--------|-------|--------|--------|--------|----------------|
| 2021 | 57.721 | 63.266 | 0.671 | 22.926 | 47.634 | 27.954 | 220.172        |
| 2022 | 70.015 | 71.192 | 0.604 | 27.612 | 40.542 | 42.938 | 252.903        |
| 2023 | 78.648 | 88.524 | 0.625 | 31.158 | 33.269 | 27.147 | 259.371        |
| 2024 | 73.622 | 68.524 | 0.599 | 23.178 | 35.718 | 66.739 | 268.380        |
| 2025 | 70.936 | 49.336 | 0.527 | 22.948 | 26.641 | 35.455 | 205.843        |

#### 3.6.1 廢水處理

菱生公司 2025 年產生廢水量約為 808.911 千立方公尺，主要為經加工出口區廢水廠進行第二次處理後排放至污水下水道，廢水來源以製造過程產生之廢水為主，菱生公司政策為盡力進行廢水回收後，方排入廢水處理廠進行處理，廢水主要污染物質為 SS、COD 及部份重金屬物質，因此設計廢水處理廠以化學混凝方式進行處理，相關處理流程及後續相關檢測情形如下

#### ■ 菱生公司廢水處理流程圖



## 2025 年菱生公司廢水檢測情形

| 檢測廠別  | 放流水定期檢測結果 |          |          |          |        |           |          |            |             |         |
|-------|-----------|----------|----------|----------|--------|-----------|----------|------------|-------------|---------|
|       | PH        | SS       | COD      | F        | Pb     | Cu        | 硝酸鹽氮     | 氨氮         | TTO         | Ag      |
| T1    | 7.9       | 4.1mg/L  | 93.7mg/L | 0.49mg/L | ND     | 0.25mg/L  | 2.37mg/L | 2.63mg/L   | ND          | ND-     |
| T2    | 7.7       | 8.2mg/L  | 21.9mg/L | <0.1mg/L | ND     | 0.028mg/L | 0.3mg/L  | ND         | < 0.181mg/L | ND      |
| T5    | 8.4       | 5.2mg/L  | 71.6mg/L | <0.1mg/L | ND     | 0.094mg/L | 4.86mg/L | <0.05 mg/L | < 0.181mg/L | ND      |
| T6    | 7.9       | 11.3mg/L | 17.7mg/L | 1.18mg/L | ND     | 0.741mg/L | 5.62mg/L | 1.37 mg/L  | ND          | -       |
| 放流水標準 |           |          |          |          |        |           |          |            |             |         |
|       | 6~9       | 30 mg/L  | 100 mg/L | 15 mg/L  | 1 mg/L | 1.5 mg/L  | 50 mg/L  | 30mg/L     | 1.37mg/L    | 0.5mg/L |

### 3.6.2 製程廢水回收

菱生公司認為要達到水資源有效利用，將製程廢水重複使用。菱生公司 2025 年工業用水使用水量經水錶統計為 1,014,754 噸，主要使用來源為冷卻水塔、晶圓切割、研磨、切單等製程及空調用水。經過多次反覆實驗及測試後，決定採用 UF 薄膜及 RO 抗垢膜進行廢水回收，並將回收之廢水導入現場製程再次使用，藉以減水水資源耗損，目前公司針對製程用水量最高廠別，已設置共 5 套 UF 薄膜回收系統及 3 套 ROR 回收系統，並已於 2025 年已共計回收廢水 584,096 噸，以各廠製程來看回收效率達 45%~90% (視廢水回收系統設計) 以上。

### 菱生公司 UF 廢水回收系統



## 2016~2025 年廢水回收量及效率

| 年度              | 2016    | 2017    | 2018    | 2019    | 2020    | 2021    | 2022    | 2023    | 2024    | 2025    |
|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 節約製程<br>廢水量 (噸) | 465,377 | 610,673 | 541,848 | 536,454 | 521,079 | 684,149 | 591,734 | 577,027 | 490,858 | 584,096 |
| 回收效率%           | 60~80   | 60~80   | 60~80   | 65~83   | 65~83   | 65~87   | 60~80   | 60~80   | 45~80   | 45~90   |

## 2019~2025 年總取水量

| 廠別   | T1      | T2      | T3    | T4     | T5      | T6      | 總取水量<br>(千立方公尺) |
|------|---------|---------|-------|--------|---------|---------|-----------------|
| 2019 | 111.555 | 267.066 | 0.422 | 32.597 | 104.276 | 271.405 | 787.321         |
| 2020 | 115.958 | 294.152 | 0.656 | 24.496 | 112.737 | 313.943 | 861.942         |
| 2021 | 134.630 | 286.914 | 0.671 | 22.926 | 127.416 | 375.804 | 948.361         |
| 2022 | 154.586 | 244.711 | 0.604 | 27.612 | 99.348  | 369.912 | 896.773         |
| 2023 | 154.235 | 256.268 | 0.625 | 31.158 | 106.414 | 368.436 | 917.136         |
| 2024 | 161.076 | 220.721 | 0.599 | 23.178 | 119.948 | 489.337 | 1,014.859       |
| 2025 | 161.762 | 252.511 | 0.527 | 22.948 | 103.104 | 473.902 | 1,014.754       |

### 3.6.3 其他節水方式

菱生公司致力於製程廢水回收外，亦積極加強由其他方面著手減少水資源浪費。公司純水系統所產生 RO 排水及逆洗排水，並不直接排入廢水廠處理，而是先由槽體儲存後，抽送至冷卻水塔使用，減少冷卻水塔用水量，經過冷卻水塔濃縮冷卻至無法使用後，方才排入廢水廠處理，2025 年共計節省 584,096 噸自來水使用量。

#### 次級用水回收至冷卻水塔使用

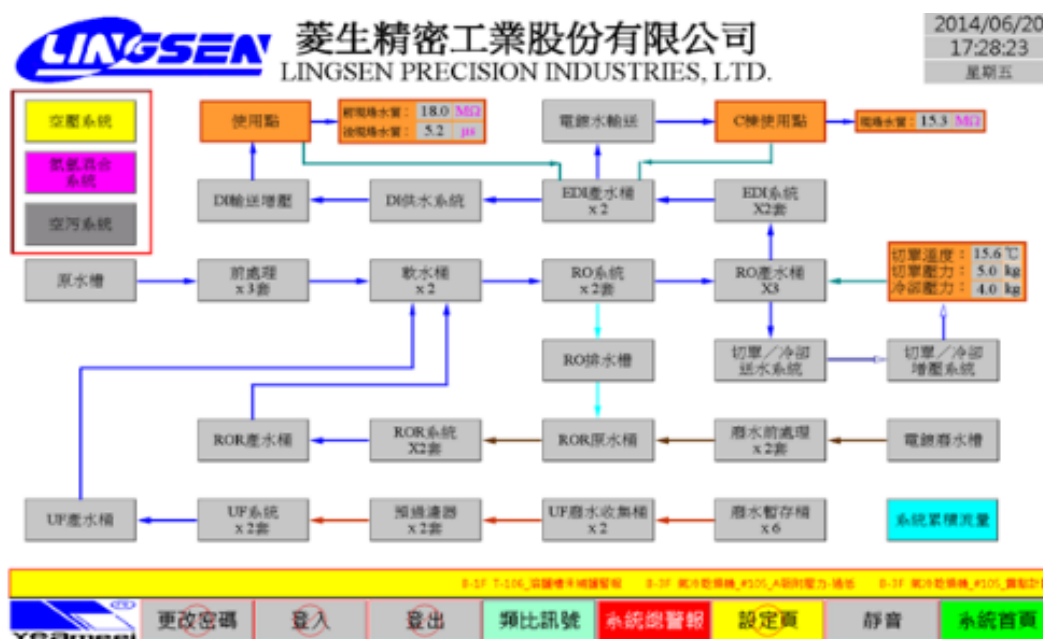


菱生公司於台中廠 T6 生產大樓，亦加入雨水回收設施及生活廢水過濾系統，藉由新水資源回收系統規劃開拓新用水資源。除此之外為有效利用水資源合理之運用及控制十分重要，已將水資源監控系統納入台中廠 T6 生產大樓基本設備，利用合理之控管使水資源可更有效之分配，減少水資源浪費。

## ■ 雨水儲槽及生活汙水回收系統



## ■ 菱生公司水資源管理監控系統



# 04 利害關係人的互動與經營

## 4.1 利害關係人之鑑別與溝通

菱生公司追求永續發展，與公司的利害關係人建立有效的多向溝通管道，瞭解他們的需求以及對菱生公司的期許，作為擬訂企業社會責任政策與相關計劃的重要參考。

### 4.1.1 利害關係人鑑別

菱生公司利害關係人的定義係為對公司產生影響或受公司影響的內、外部團體或個人。基於此定義，我們鑑別出公司的利害關係者包含股東/投資人、客戶、供應商、員工、政府機關、社區、競爭者、媒體、非政府組織及研究機構等。公司考量國內外永續發展趨勢及營運需求，並經內部相關單位討論後，定義出本報告書主要溝通的利害關係者為股東/投資人、客戶、供應商、員工、政府、及社區等。

### 4.1.2 重大主題分析程序

#### ①永續議題蒐集

菱生公司參考 GRI Standards、SASB 永續會計準則委員會、永續揭露指標、聯合國永續發展目標 (SDGS) 等規範，及考量目前永續發展趨勢與公司營運需求，共列舉 26 項永續議題。

#### ②利害關係人關注議題調查與評估

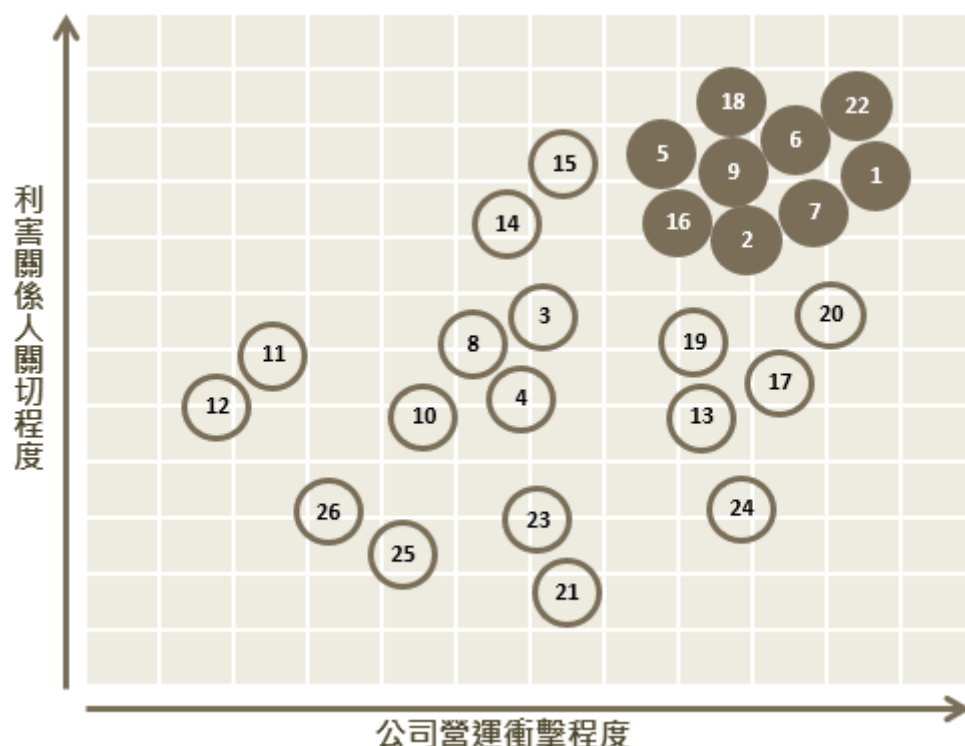
透過內部各負責單位建立的溝通管道，瞭解利害關係人對菱生永續議題的關注程度。並依回饋內容決定該議題所受關切程度及對公司的可能衝擊進行重大性評估與分析。

#### ③重大議題決定

經過永續發展團隊討論並向高階管理階層報告決定出 9 項關鍵永續主題，並彙整相關資訊來制定管理系統與流程來進行揭露。

## 4.2 利害關係人重大性分析

### ■ 利害關係人關鍵議題分析結果



### ■ 利害關係人關鍵議題分析結果

| 重大主題關切度      |               |                |
|--------------|---------------|----------------|
| 1. 符合法令規範    | 10. 機密資訊保護    | 19. 原物料使用與再生材料 |
| 2. 公司治理      | 11. 人才招聘與留才   | 20. 能源管理       |
| 3. 永續發展政策    | 12. 員工薪資與福利   | 21. 產品碳足跡      |
| 4. 風險管理      | 13. 勞工人權      | 22. 溫室氣體管理     |
| 5. 產品品質與技術研發 | 14. 職涯發展與教育訓練 | 23. 綠色產品       |
| 6. 營運財務績效    | 15. 職業安全衛生    | 24. 廢棄物管理      |
| 7. 供應鏈管理     | 16. 水資源管理     | 25. 環境政策/管理系統  |
| 8. 社區參與與社區公益 | 17. 有害物質管理    | 26. 地緣政治風險     |
| 9. 客戶服務與滿意度  | 18. 空氣汙染物管制   |                |

## 利害關係人關注議題重大性分析

| 重要議題      | 回應章節             | 頁碼    |
|-----------|------------------|-------|
| 符合法令規範    | 公司治理/人才培育與職場和諧安全 | 68/39 |
|           | 環境保護/客戶服務與供應商管理  | 9/53  |
| 公司治理      | 公司治理             | 68    |
| 產品品質與技術研發 | 經營概況/綠色產品        | 64/22 |
| 營運財務績效    | 經營概況             | 64    |
| 供應鏈管理     | 供應商管理            | 54    |
| 客戶服務與滿意度  | 客戶服務與滿意度         | 53    |
| 水資源管理     | 水資源管理            | 30    |
| 空氣汙染物管制   | 空污及廢棄物回收管理       | 25    |
| 溫室氣體管理    | 碳排放管理            | 15    |

## 重大考量面與邊界鑑別

| 類別   | 永續議題      | 重大考量面     | 公司內部邊界 | 公司外部邊界 |     |    |
|------|-----------|-----------|--------|--------|-----|----|
|      |           |           | 菱生公司   | 客戶     | 供應商 | 社區 |
| 公司治理 | 經濟績效      | 經濟績效      | ✓      |        |     |    |
|      | 公司治理      | 公司治理      | ✓      |        |     |    |
|      | 法律遵循和道德規範 | 遵守法規      | ✓      |        |     |    |
|      |           | 行為準則和道德守則 | ✓      |        |     |    |
|      | 風險管理      | 風險管理      | ✓      |        |     |    |
| 環境   | 環境保護      | 廢棄物       | ✓      |        |     |    |
|      |           | 放流水       | ✓      |        |     |    |
|      |           | 產品服務      | ✓      |        |     |    |
|      |           | 環境法規依循    | ✓      |        |     |    |
|      | 生態效率      | 溫室氣體排放    | ✓      |        |     |    |
|      |           | 水         | ✓      |        |     |    |

| 類別              | 永續議題    | 重大考量面    | 公司內部邊界 | 公司外部邊界 |     |    |
|-----------------|---------|----------|--------|--------|-----|----|
|                 |         |          | 菱生公司   | 客戶     | 供應商 | 社區 |
| 員工關懷<br>與<br>發展 | 員工關懷    | 員工福利     | ✓      |        |     |    |
|                 |         | 教育訓練     | ✓      |        |     |    |
|                 |         | 訓練與教育    | ✓      |        |     |    |
|                 |         | 多樣性平等機會  | ✓      |        |     |    |
|                 |         | 女男同酬     | ✓      |        |     |    |
|                 | 供應鏈發展   | 採購政策與方法  | ✓      |        | ✓   |    |
|                 |         | 衝突礦產     | ✓      |        | ✓   |    |
|                 | 供應商管理   | 供應商環境評估  | ✓      |        | ✓   |    |
| 社會參與            | 社區發展    | 當地社區發展計劃 | ✓      |        |     | ✓  |
|                 | 利害關係人溝通 | 利害關係人議合  | ✓      | ✓      | ✓   | ✓  |

## 利害關係人相關計劃

菱生公司各相關單位依據前述分析結果納入日常工作或年度計劃中，作為公司發展永續經營策略的重要依據。

## 利害關係人互動與經營

菱生公司與利害關係人互動的過程中，依據不同之利害關係者設定不同議題之績效指標，定期檢討以推動持續進步。菱生公司相信與利害關係人建立良好的互動，能協助公司更加掌握經濟、社會及環境的挑戰，促進公司經營能力向上提升，成為基業長青的重要關鍵。

## 菱生公司與利害關係人溝通管道

| 利害關係人       | 關注議題         | 溝通管道          | 2025 年相關活動與重點   |
|-------------|--------------|---------------|-----------------|
| 股東<br>(投資人) | ■ 營運績效       | 1. 年度股東大會     | 2025 年相關營運績效報告  |
|             | ■ 新產品開發項目及時程 | 2. 設有發言人制度    | 2025 年新產品開發現況報告 |
| 客戶          | ■ 綠色產品       | 1. 每季客戶滿意度調查  |                 |
|             | ■ 無衝突金屬調查    | 2. 每季客戶業務檢討會議 | 前 15 大客戶滿意度調查   |
|             | ■ RBA        | 3. 不定期客戶稽核    |                 |

| 利害關係人 | 關注議題        | 溝通管道              | 2025 年相關活動與重點      |
|-------|-------------|-------------------|--------------------|
| 供應商   | ■ 產品品質/技術研發 | 1. 供應商會議 ( 每月 )   | 供應商 CMRT/EMRT 調查   |
|       | ■ 供應鏈管理     | 2. 供應商資料調查 ( 每年 ) | 2025 年營運績效         |
|       | ■ 營運財務績效    | 3. 供應商稽核          | 供應商風險管理            |
|       | ■ 有害物質管理    |                   | 供應商考核/稽核           |
| 員工    | ■ 公司治理      | 1. 公司性公告          | 公司新政策即時公告          |
|       | ■ 符合法令規範    | 2. 各廠區人力資源服務代表    | 各廠區派駐人資人員，即時處理員工問題 |
|       | ■ 勞資關係      | 3. 各單位定期/不定期溝通會   | 定期舉行勞資會議           |
|       | ■ 薪資福利      | 4. 總經理信箱、人資主管信箱   | 參加政府舉辦身心障礙者就業活動    |
|       | ■ 職業安全與健康   | 5. 定期舉行職業安全衛生委員會  | 職業安全衛生委員會議         |
| 政府    | ■ 環境法規遵循    | 1. 主管機關訪查         | 定期配合主管機關工安/環保稽核    |
|       | ■ 社會法規遵循    | 2. 法規/政令說明會       | 定期參與主管機關舉辦說明會      |
|       |             | 3. 公文來往           | 不定期公文往來            |
| 社區    | ■ 社區參與及社區公益 | 1. 產學合作           | 開設產學專班             |
|       |             |                   | 參與各校舉辦校園徵才活動       |
|       |             | 2. 慈善關懷           | 愛心商品認購             |
|       |             |                   | 各廠區發票箱設立           |

# 05 人才培育與職場和諧安全

## 5.1 薪資與福利

本公司視員工為重要資產，除了致力於提供人性化與安全的工作環境，也秉持與員工利潤共享的理念，依據公司的營運績效，提供同仁優於同業水準之整體薪酬。

### 5.1.1 績效導向的薪資制度

「一流人才，一流待遇」，為了吸引、激勵並留住優秀人才，菱生提供具吸引力、高度競爭力的薪資條件，以工作之重要度與困難度作為薪資設計的理念，依據個人績效給予不同的薪資與獎酬：例如每年依公司營運績效及個人績效，不定期發予營運績效獎金。

菱生不僅遵守勞動法令要求，也積極參與區域性的薪資聯誼會，以確保提供具市場競爭力之薪酬。透過學經歷背景及市場行情調查，規劃出具競爭力的薪酬，不因性別、種族、宗教、政治立場、婚姻狀況而有差別待遇，以激勵並留任優秀人才。2025 年非擔任主管職務之全時員工薪資平均數為 599,625 元、中位數為 542,392 元；2024 年非擔任主管職務之全時員工薪資平均數為 590,280 元、中位數為 539,295 元。

### 5.1.2 薪資報酬委員會

菱生依法設置薪資報酬委員會，由三名獨立董事組成，以專業客觀之地位，就本公司董事及經理人之薪資報酬政策及制度予以評估。薪酬委員會訂定並定期檢討本公司董事及經理人年度及長期之績效目標與薪資報酬之政策、制度、標準與結構，且定期評估本公司董事及經理人之績效目標達成情形。2025 年最高薪酬之個人年薪與其他員工年薪中位數比率為 11.9；最高薪酬之個人年總收入增加%與其他員工年總收入增加%中位數比率為 0.027。

### 5.1.3 全方位保險制度

依法於員工到職當日，即為每一位同仁投保勞工保險、全民健康保險，並由公司全額付費投保團體保險，以提供員工更完善的保障，另額外提供因公出差之海外旅遊平安險，以保障同仁的工作及生活安全。

### 5.1.4 健全的退休制度

本公司自民國 75 年 11 月即遵照勞基法規定設立勞工退休準備金監督委員會，按月提撥勞工退休準備金存入中央信託局專戶，截至民國 114 年底退休金專戶餘額為 685,510 仟元，符合退休條件之勞工退休時即可請領退休金，確保在職員工之權益，使全體員工能無後顧之憂，全心全力投入工作行列。公司每年透過專業的會計顧問，進行退休準備金的精算，以確認足額提撥，保障同仁未來請領退休金的權益。

自 94 年 7 月 1 日起，本公司依照「勞工退休金條例」規定：選擇適用勞動基準法退休制度與保留適用勞工退休金條例前工作年資之勞工人數、工資、工作年資、流動率等因素精算其勞工退休準備金之提撥率，繼續依照勞動基準法第五十六條第一項規定，按月於五年內足額提撥勞工退休準備金，以作為支付退休金之用。選擇適用勞工退休金條例者，本公司依照工資分級表，按月提撥員工每月投保薪資之 6%至勞保局設立之個人退休金專戶，若有自願提繳退休金者，公司也會依自願提繳率由薪資代為扣繳。

### 5.1.5 育嬰留停措施

本公司休假制度均依勞動基準法訂定，並支持政府育嬰留停政策；所有同仁均享有申請產假、陪產假及育嬰假之權利。除了各項員工福利無性別差異或歧視外，暫時無法投入職場之同仁，可以依育嬰需求暫時停職，待可全心投入職場後再復職銜接職涯發展。本公司重視員工育嬰、托嬰的問題，由人資單位人員親自與育嬰留停人員面談，並代為申請勞工保險相關津貼；此外，育嬰留停中的人員，也可依個人及家庭需求，辦理自願提前或延後復職，同仁均表示非常感謝公司提供完善的育嬰留停措施。

### ■ 2024 年-2025 年菱生申請產假/陪產假與育嬰假人數統計

| 年度     | 申請人數 | 產假/陪產假 |    | 育嬰假 |    |
|--------|------|--------|----|-----|----|
|        | 類別   | 男性     | 女性 | 男性  | 女性 |
| 2024 年 | 小計   | 19     | 13 | 5   | 15 |
|        | 總人數  | 32     |    | 20  |    |

| 年度     | 申請人數 | 產假/陪產假 |    | 育嬰假 |    |
|--------|------|--------|----|-----|----|
|        | 類別   | 男性     | 女性 | 男性  | 女性 |
| 2025 年 | 小計   | 10     | 18 | 6   | 9  |
|        | 總人數  | 28     |    | 15  |    |

## 2024 年育嬰假回任率與留存率

| 2024 年申請育嬰留職停薪人數                     | 合計  | 男    | 女   |
|--------------------------------------|-----|------|-----|
|                                      | 20  | 5    | 15  |
| 2024 年育嬰留職停薪原應復職人數(A)                | 15  | 3    | 12  |
| 2024 年育嬰留職停薪原應復職且復職人數(B)             | 9   | 2    | 7   |
| 回任率(B/A)                             | 60% | 67%  | 58% |
| 2023 育嬰留職停薪復職人數(C)                   | 8   | 2    | 6   |
| 2023 年育嬰留職停薪復職且於民國 2024 年在職滿一年之人數(D) | 3   | 2    | 1   |
| 留任率(D/C)                             | 38% | 100% | 17% |

## 2025 年育嬰假回任率與留存率

| 2025 年申請育嬰留職停薪人數                     | 合計  | 男   | 女    |
|--------------------------------------|-----|-----|------|
|                                      | 15  | 6   | 9    |
| 2025 年育嬰留職停薪原應復職人數(A)                | 11  | 6   | 5    |
| 2025 年育嬰留職停薪原應復職且復職人數(B)             | 8   | 5   | 3    |
| 回任率(B/A)                             | 73% | 83% | 60%  |
| 2024 育嬰留職停薪復職人數(C)                   | 9   | 2   | 7    |
| 2024 年育嬰留職停薪復職且於民國 2025 年在職滿一年之人數(D) | 7   | 0   | 7    |
| 留任率(D/C)                             | 78% | -   | 100% |

### 5.1.6 員工福利

- ① 股票上市、員工持股信託
- ② 生日及三節禮券、結婚 / 生育祝賀金、住院 / 喪亡慰問金
- ③ 多樣化員工旅遊
- ④ 員工健康檢查
- ⑤ 哺乳室及廠護設置、特約駐廠醫生諮詢、特約醫院
- ⑥ 勞健保、勞退金

### 5.1.7 無強迫勞動

每位菱生員工與公司之勞動契約訂定皆符合法令規定。於聘僱關係成立時皆依法簽訂書面之勞動契約，契約載明聘僱關係乃基於雙方合意之前提下所建立，不得強迫勞動，及無非法販賣人口並反對奴役制度。員工加班皆屬自願性質，且公司規範中明訂不得超時工作，於

考勤系統中主動設置提醒功能，人資部每日進行檢視與控管，提醒各單位人員不得超時工作，關心每位同仁的健康。

### 5.1.8 社團、勞教活動、多元休閒活動

本公司成立各式各樣的社團活動及舉辦多元化的勞教活動，使同仁可在繁忙的工作之餘，藉由多元化的活動，培養各種興趣，並紓解壓力；同仁家庭也是公司關注與積極營造的，不定期的舉辦多項親子同樂活動，邀請同仁與眷屬一起參加，不僅促進親子及家人間的關係，亦凝聚菱生大家族的歸屬感。

## 5.2 平等雇用機會、限制勞動

### 5.2.1 雇用現況

#### ■ 人才招聘

本公司僱用員工，以唯才是用及適才適所為依據，秉持機會平等的原則且重視員工背景的多樣性，對於不同種族、年齡、階級、語言、思想、宗教、黨派、政治、籍貫、性別、性傾向、婚姻、容貌、國籍、五官、身心障礙之應徵者皆平等對待；同時禁止聘雇 16 歲以下之童工，全面遵循公開招聘、公平甄選及擇優錄用的基本原則，經由完善規劃的招募流程，滿足公司的人才需求。

「人才」是菱生最重要的資產，積極聘任、激勵、留任是人才招聘的最高指導原則；公司以多元化的管道招募新進人員，目前的招募管道有網路、員工介紹、徵才活動、平面媒體等，另配合教育部推動各項產學合作、實習方案，網羅各地一流的人才。

#### ■ 菱生招募管道

| 招募管道 | 方式                            |
|------|-------------------------------|
| 網路   | 人力銀行網站                        |
| 員工介紹 | 介紹親朋好友可獲得介紹獎金                 |
| 徵才活動 | 與各地區就業服務站合作舉辦單一或聯合徵才活動、各大校園徵才 |
| 平面媒體 | 透過各平面媒體平台刊登地區性求才廣告            |
| 產學合作 | 與各校積極洽談產學合作、實習方案              |

## 人才留任

菱生培育、珍惜、關懷員工讓員工盡情地發揮最高潛力，視為最高留才指導原則，藉由提供多元的員工溝通管道、具競爭力的薪資福利及舒適安全的工作環境來促進員工留任。對於表現優秀同仁，主動推行具發展性職涯規劃與輪調安排，讓其在公司擁有多元成長與發揮空間。

針對離職員工，人資部安排離職訪談，瞭解與分析離職原因，全力進行慰留與關懷。並針對離職原因分析中所顯示問題積極進行改善。每週定期提供人員流動報表予各單位主管，協助各層級主管即時掌握人員流動狀況。人資部亦會視各組織狀況與需要，主動與各單位主管聯繫，改善人員異常流動問題。

## 顧用現況

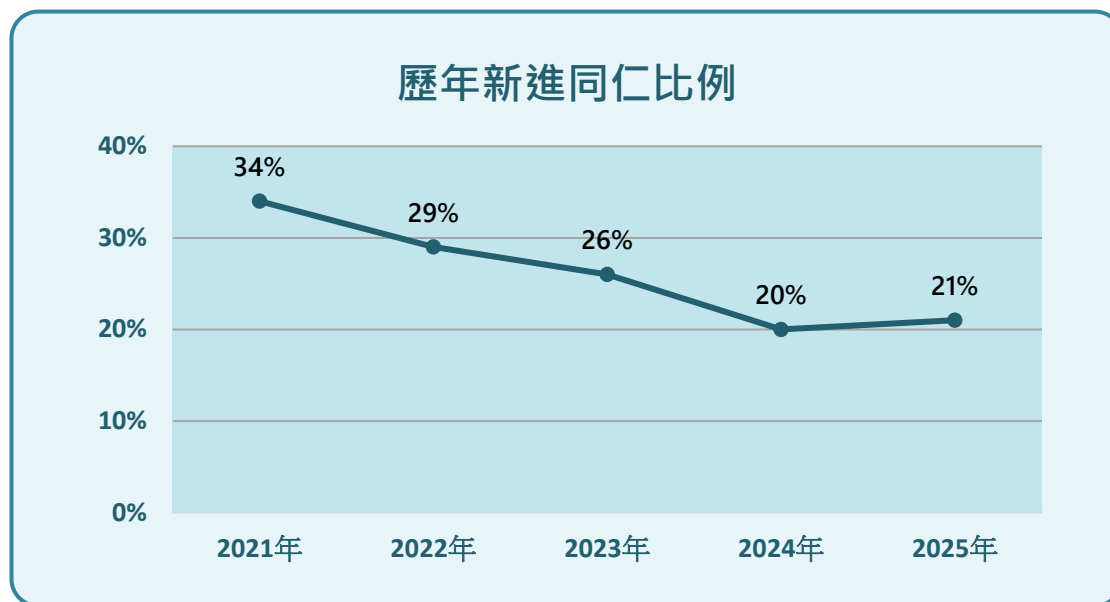
截至 2025 年底，本公司員工總人數為 2,318 人，包括男性 978 人(42%)，女性 1,340 人(58%)；本國籍員工為 1,585 人(68%)，外國籍員工為 733 人(32%)。本國勞工皆為正職員工，非契約工。

職別方面，直接人員人數為 1,559 人(67%)，間接人員人數為 759 人(33%)。30 歲以下員工為 1,039 人(45%)，30 歲~50 歲員工為 884 人(38%)，50 歲以上員工為 395 人(17%)。同時，我們尊重身心障礙者工作權益，積極參加政府舉辦身心障礙者就業活動，目前有 24 位身心障礙同仁，與菱生一同努力。

| 類別        | 男   |     | 女     |     | 小計    |      |
|-----------|-----|-----|-------|-----|-------|------|
|           | 人數  | 比率  | 人數    | 比率  | 人數    | 比率   |
| 直接人員      | 393 | 25% | 1,166 | 75% | 1,559 | 67%  |
| 間接人員      | 585 | 77% | 174   | 23% | 759   | 33%  |
| 30 歲以下    | 400 | 38% | 639   | 62% | 1,039 | 45%  |
| 30 歲~50 歲 | 428 | 48% | 456   | 52% | 884   | 38%  |
| 50 歲以上    | 150 | 38% | 245   | 62% | 395   | 17%  |
| 本國籍       | 827 | 52% | 758   | 48% | 1,585 | 68%  |
| 外國籍       | 151 | 21% | 582   | 79% | 733   | 32%  |
| 性別小計      | 978 | 42% | 1,340 | 58% | 2,318 | 100% |
| 總人數       |     |     |       |     | 2,318 | 100% |

## 5.2.2 新進同仁

2025 年度共有 476 位新進同仁( 男性 176 人、女性 300 人 )，佔公司總人數 21%，其中又以 30 歲以下員工為主要新進人員，佔總新進同仁 86%。



### 01 / 歷年新進同仁分佈狀況<依性別>

| 年度     | 男   |     | 女   |     | 總人數 |     |
|--------|-----|-----|-----|-----|-----|-----|
|        | 人數  | 比率  | 人數  | 比率  | 人數  | 比率  |
| 2023 年 | 274 | 25% | 346 | 27% | 620 | 26% |
| 2024 年 | 233 | 22% | 249 | 19% | 482 | 20% |
| 2025 年 | 176 | 18% | 300 | 22% | 476 | 21% |

註：新進率為該性別當年度新進人數，除以當年底該性別人員總數。

### 02 / 歷年新進同仁分佈狀況<依年齡>

| 年度     | 30 歲以下 |     | 30 歲~50 歲 |     | 50 歲以上 |      | 總人數 |     |
|--------|--------|-----|-----------|-----|--------|------|-----|-----|
|        | 人數     | 比率  | 人數        | 比率  | 人數     | 比率   | 人數  | 比率  |
| 2023 年 | 465    | 50% | 154       | 14% | 1      | 0.3% | 620 | 26% |
| 2024 年 | 361    | 39% | 119       | 12% | 2      | 0.5% | 482 | 20% |
| 2025 年 | 407    | 39% | 67        | 8%  | 2      | 0.5% | 476 | 21% |

註：新進率為該類別當年度新進人數，除以當年底該類別人員總數。

## 03 / 2025 新進員工分佈狀況

| 項目 |         | 人數  | 百分比   |
|----|---------|-----|-------|
| 性別 | 男性      | 176 | 37%   |
|    | 女性      | 300 | 63%   |
| 年齡 | 30 歲以下  | 407 | 85.5% |
|    | 30~50 歲 | 67  | 14.1% |
|    | 50 歲以上  | 2   | 0.4%  |
| 國籍 | 本國籍     | 160 | 34%   |
|    | 外國籍     | 316 | 66%   |
| 職別 | 直接人員    | 397 | 83%   |
|    | 間接人員    | 79  | 17%   |
| 合計 |         | 476 | 100%  |

## 5.2.3 離職狀況

2025 年離職人數共 530 人（男性 248 人、女性 282 人），歷年離職狀況如下表。

## 01 / 歷年離職同仁分佈狀況&lt;依性別&gt;

| 年度     | 男   |     | 女   |     | 總人數 |     |
|--------|-----|-----|-----|-----|-----|-----|
|        | 人數  | 比率  | 人數  | 比率  | 人數  | 比率  |
| 2023 年 | 249 | 22% | 285 | 23% | 534 | 22% |
| 2024 年 | 283 | 27% | 193 | 15% | 476 | 20% |
| 2025 年 | 248 | 25% | 282 | 21% | 530 | 23% |

註：離職率為該性別當年度離職人數，除以當年底該性別人員總數。

## 02 / 歷年離職同仁分佈狀況&lt;依年齡&gt;

| 年度     | 30 歲以下 |     | 30 歲~50 歲 |     | 50 歲以上 |    | 總人數 |     |
|--------|--------|-----|-----------|-----|--------|----|-----|-----|
|        | 人數     | 比率  | 人數        | 比率  | 人數     | 比率 | 人數  | 比率  |
| 2023 年 | 303    | 33% | 214       | 20% | 17     | 4% | 534 | 22% |
| 2024 年 | 270    | 29% | 179       | 18% | 27     | 6% | 476 | 20% |
| 2025 年 | 284    | 27% | 216       | 24% | 30     | 8% | 530 | 23% |

註：離職率為該類別當年度離職人數，除以當年底該類別人員總數。

## 03 / 2025 離職員工分佈狀況

| 項目 |         | 人數  | 百分比  |
|----|---------|-----|------|
| 性別 | 男性      | 248 | 47%  |
|    | 女性      | 282 | 53%  |
| 年齡 | 30 歲以下  | 284 | 54%  |
|    | 30~50 歲 | 216 | 41%  |
|    | 50 歲以上  | 30  | 6%   |
| 國籍 | 本國籍     | 323 | 61%  |
|    | 外國籍     | 207 | 39%  |
| 職別 | 直接人員    | 371 | 70%  |
|    | 間接人員    | 159 | 30%  |
| 合計 |         | 530 | 100% |

## 5.3 職業安全與衛生

我們深信唯有提供員工安全衛生的工作環境，才能為內外部的利害關係者創造更好的產品與品質。為落實此信念，本公司除遵守國內相關法規展開各項日常作業管理外，並導入職業安全衛生管理系統（ISO 45001：2018），藉由管理系統的文件化、計畫、實施、查核、矯正預防等手法，持續不斷提昇安全衛生的工作環境，達到內、外部的客戶滿意。

在推動職業安全衛生管理過程中，公司選定人、建築物/機械/設備、原物料/廢棄物、作業環境，作為安全衛生管理的四大主軸，透過危害鑑別風險評估、機械設備原物料之安全採購管理、承攬包商入廠安全管理、員工安全衛生教育、防護具提供與管理、作業環境採樣測定、員工照護健康促進、緊急應變管理、專案管理..等程序進行管制，並將這些作業程序以 PDCA 的管理循環進行持續改善，以杜絕職業災病的發生。

## 5.3.1 職業安全衛生組織

廠內設有一級的安全衛生管理專責單位，負責訂定廠區之職業安全健康管理目標與落實推動之管理單位。另為強化與員工的溝通，由總經理擔任主任委員，召集幹部、相關技術人員與勞工（工會）代表組成安全衛生委員會，其中勞工（工會）代表符合法律規定，佔所有委員人數 33.3%，每季定期研議職業安全健康議題，藉由員工的參與溝通，持續建構安全健康的工作環境。

### 5.3.2 職業安全衛生管理程序

- **機台設備安全管理：**提供安全衛生的機械設備供員工生產操作為本公司採購的原則之一。因此在購買新機器設備前，會事先提列出安全衛生需求與規範，於機台入廠後並進行驗收確認，以落實機械設備的本質安全。
- **化學品安全管理：**所有化學品的採購，皆由本公司環保工安單位先行評估，確保公司有控制該化學品在法規、環境與員工健康的危害風險後，才進行採購入廠。入廠後並進行危害通識、公共危險物的存量管控、儲存與使用位置定期巡視、使用方法與廢棄處理管控等作業安全管理，讓化學品對環境與人體健康之危害降至可接受的範圍。
- **承攬商安全管理：**承攬廠商是菱生順利營運的重要伙伴，為此菱生一直以來投入許多資源以確保承攬商在廠內的工作安全。包含所有施工廠商進廠前，即收到全廠區的各項危害告知，並要求所有廠商加入本公司的安全衛生協議組織，入廠前再由公司派工作人員對該次作業環境進行風險等級確認，並與廠商進行防災協議，以防範承攬商於陌生環境的作業風險，共同防止職業災害。
- **高風險作業管理：**為避免重大工安意外的發生，公司針對動火、吊掛、高架、侷限空間等會造成重大人員傷亡或財產損失的作業，明文列入公司的高風險作業項目，採取重點式的特別管理，包括事前需經核准、通知被影響的單位、作業中的檢查與完工後的確認等。

### 5.3.3 職業安全衛生教育訓練及緊急應變訓練

勞工對於工作場所的安全衛生有知的權利，也唯有認識作業的危害才能避免事故的發生，因此在職業安全衛生教育理念上採用「不怕你知道，就怕你不想知道」的方式在編輯教材與安排訓練。每位員工一進公司的第一天即先安排職業安全訓練，認識在公司作業可能產生的危害，接著在工作場所再進行實務的安全衛生 OJT 訓練，包含有各單位依所屬的機械設備危害鑑別結果告知訓練、化學品危害通識訓練、緊急疏散路線與集合地點等危害內容訓練，落實員工知的基本權利。

緊急應變也是公司職安衛教育訓練的一環，唯有透過事前的預演訓練，才有機會在發生重大事故時將災害降到最低，故各生產線訂有緊急應變成員組織及權責表，並由該廠最高主管擔任指揮官；每年每廠區都辦理通報、減災、避難引導之訓練，另針對化學品洩漏、滅火器實作體驗、全體性疏散等，也皆列入每年定期的演練項目。

於 2025 年於廠內共辦理職業安全訓練與緊急應變訓練實績如下：

- 新人職前共同職業安全訓練講習：115 梯次。
- 緊急應變之通報、減災、避難引導、全體疏散演練：20 梯次。
- 化學品洩漏應變處理：6 梯次。

### 5.3.4 職業災害統計分析

本公司之職業災害統計分析，採用失能傷害頻率（工作場所每一百萬工時平均失能傷害件數，FR）、失能傷害嚴重率（工作場所每一百萬工時平均損失工作日數，SR）及綜合傷害指數（FSI）為主要統計比較依據，其中統計數字不包含廠外交通意外事故。在考量公司過往職安衛風險與同業目標後，設訂綜合傷害指數在 0.86 以下。且經全體員工參與和共同防災承諾下，2025 年廠內重大職傷件數為 0 件，損失天數 0 天，統計結果失能傷害頻率為 0，失能傷害嚴重率為 0，綜合傷害指數（FSI）為 0，達到設訂的年度指數目標。

### 5.3.5 員工健康管理與健康促進

隨著社會不斷進步與變遷，企業的員工也越來越不易招聘，如果現有的員工再發生健康上的問題，將無法提供穩定的人力、更讓人力資源成本無形增加。有鑑於此，本公司聘請了專業的護理人員為員工的職場健康把關，包括安排新進員工體格檢查，每年舉辦定期健康檢查、特殊作業健康檢查，同時也與專業的醫學、衛生機構合作，每月進行醫生臨廠服務，主動進行員工健康管理。而在健康促進部份，廠護積極掌握特殊族群人員，如中高齡、過勞風險指數偏高、身心障礙、健康檢查異常或請公傷、病假異常等員工，安排主動式的訪視關懷與健康促進，作業方式包括對日常生活注意事項的提點、對工作內容的安排適當與否協調，或安排臨廠服務醫師諮詢..等。期能讓所有員工可以在菱生健康穩定的工作，為企業與勞工間創造雙贏。

## 5.4 教育訓練

本公司一向秉持人才是公司經營的根本，因此重視員工教育訓練，希望藉由各項訓練課程可以強化員工專業技能、提升人力素質及強化公司經營體質。因此由各部門高階主管組成教育訓練委員會，每年依據各單位訓練需求及配合公司政策研擬下一年度的訓練重點，且針對職能別、階層別分別訂定相對應之標準課程，使之成為公司培育人才的學習地圖，並期望能夠將訓練成效與公司經營願景緊密結合。

另就員工的生涯發展部份，教育訓練亦結合綜合績效評核表，每年定期由單位主管對所屬員工進行績效及生涯發展評量，協助員工找出工作須改善的地方與發展培訓建議，提供適當的教育訓練資源。

### 5.4.1 完整的教育訓練體系

本公司內有一套完整的職能培訓制度，針對各職位人員都有訂定應具備之職能要求，並針對職能落差的部份開辦適當的訓練課程以彌補能力之不足，不管是一般行政人員或工程師都可以按部就班、循序漸進的提高自身的能力以便符合各職位的職能要求。同時針對工程師建立一套技術職系的訓練制度，透過各種專業技能的訓練，協助工程師取得各等級的技術認證。

### 5.4.2 多元化的教育訓練制度

本公司為使訓練與年度目標結合，讓員工所學可以立即實踐在工作上，因而依人員特性、訓練地點、學習成效等設計下列之訓練制度，使員工可以快速具備所需之基本知識、技能與態度，而快速溶入工作，達成公司設定的目標。

#### ■ 新人教育訓練

包含新進人員職前訓練、新進人員基礎訓練等，協助新進人員快速了解企業文化、公司核心價值、工作環境與公司在社會責任相關議題。公司內部並有完整的訓練師傅制度，每位新進人員皆有一位訓練師傅負責教導，藉由師傅的教導可以讓新進人員儘快融入工作當中，並且達到公司的工作要求。

## ■ 工作場所在職訓練(OJT)

協助生產線員工學習工作所需之知識、技能及態度，並通過認證以取得機台操作許可的訓練課程。

## ■ 廠內教育訓練

包含品質類、製程類、問題分析與解決、管理類等課程，目的為透過這些訓練課程培養管理幹部的領導能力及建立廠內共同溝通的技術語言。

## ■ 廠外教育訓練

公司鼓勵員工至廠外吸收各項科技新知，因此經常派人參加各專業機構舉辦之技術研討會及專題講座，並於回廠後以心得分享的方式將課程內容轉達給各部門相關人員知悉，藉以達到知識共享的目的。

## ■ 課程訓練時數

為使員工能夠勝任工作上的能力需求，本公司依據每位員工的訓練地圖舉辦各種訓練課程，2025 年度共計對全體員工投入 8,910 小時的訓練時數。

|        | 男性      | 女性      | 合計    |
|--------|---------|---------|-------|
| 實際人數   | 857     | 1,373   | 2,230 |
| 受訓時數   | 3,424.5 | 5,485.5 | 8,910 |
| 平均受訓時數 | 3.99    | 3.99    | 3.99  |

## 5.5 勞資關係

本公司相信，尊重員工並傾聽他們的聲音更能促進員工對企業的向心力與公司同心奮鬥。菱生重視每一位員工所提供的意見與議題，因此我們也制定了相關的規定以保障員工權益，創造勞資和諧的環境。

### ■ 尊重人權

一直以來我們將員工視為最重要的資產及夥伴，致力於為員工創造希望，提供光明愉快的工作現場，同時秉持尊重人權的精神，致力於達成下列事項：

#### 01 / 集會結社自由

員工可依自由意志，遵循法令所賦予的權利組織結社，促進勞資關係協調及保障員工權

益。公司勞工組有企業工會，參與率高達 38%。

## 02 / 無歧視之對待

建立禁止歧視之政策，確保員工在招募、報到、執行業務、升遷、任用、報酬、離職等各項過程中，不會因各種民情風俗狀況而受到任何歧視。

## 03 / 性騷擾防治

我們遵循法規，明訂並積極宣導性別工作平等法，推出各項性騷擾防治相關政策與措施，促進性別工作平等的工作環境。

## 04 / 禁用童工

本公司遵守勞動基準法相關規定，禁止使用未滿 16 歲者從事勞動工作。

## 05 / 工作時數

不強迫員工工作超過法令規定之每日最高勞動時間，並遵守加班工資的要求或必要的補償。

## ■ 多元溝通管道

本公司強調勞資和諧且重視公司與員工間的雙向溝通，除了提供員工意見交流的園地以外也不定期舉辦勞資關係會議，讓員工可以直接反映意見，建立良好的勞資互動關係，讓同仁有認同感與歸屬感，使員工對工作保持熱忱。透過勞資會議、總經理信箱及各類員工申訴機制等管道及各類員工申訴機制等管道，達到充分溝通及有效解決問題之目的。

除此，公司每年都會參與政府機關所舉辦之勞資關係宣導會及相關之研討會，以期維繫良好的勞資關係促進企業與員工的良性互動。

## 01 / 勞資會議

本公司為創造和諧的勞資關係，增進彼此瞭解，促進勞資合作，提高工作效率並保障每位同仁的權益，定期舉辦勞資會議。定期開會，相互溝通意見，勞資雙方應本和諧誠信原則，協商解決問題。

本公司工會成立已逾 30 年，公司持續與工會代表保持溝通並尊重其意見，並於每季勞資會議上針對同仁意見進行定期討論。勞資雙方權力義務均明訂於工作規則與相關辦法，截至 2025 年底工會尚未要求簽訂團體協約。

## 02 / 員工申訴處理制度

為保障員工的權益，及協助員工解決有關個人權益受損問題，本公司設有「勞工意見信箱」及「員工申訴處理制度」，以反應勞資、人權及性騷等議題，並提供員工建言管道，使員工問題能獲得有效解決，藉以落實友善的工作環境。員工意見申訴管道如下：

- a. 口頭申訴：員工如以口頭申訴，由各部門受理人員作成紀錄，立即呈報處理。
- b. 書面申訴：員工如有權益受損，或有其他意見時，得以申訴表或其他書面直接依循行政系統，提出申訴事項，各單位主管應立即查明處理，或呈報處理，並將結果或處理情形函覆申訴人。
- c. 各廠總經理信箱及工會信箱：溝通處理過程強調同仁隱私，提供同仁一個保密又可暢所欲言的溝通管道。
- d. [人資主管信箱 graceliu@lingsen.com.tw](mailto:graceliu@lingsen.com.tw)：員工問題能充分表達，即時與管理階層溝通，以建立勞資和諧的工作環境。

# 06

# 客戶服務與供應商管理

## 6.1 客戶服務與滿意度

菱生公司致力於提供最好的服務給客戶，並深信客戶服務係鞏固客戶忠誠度的關鍵。而客戶的忠誠度亦有助於加強客戶關係，擴大業務往來。本公司的目標是維持專業積體電路封裝測試等代工服務的市場地位，並相信達成上述目標將有助於穩固現有客戶之外，亦能吸引新客戶，並強化客戶信任關係。

為了提升客戶滿意度，公司每季舉辦客戶滿意度評估與調查，以確保客戶的需求得到了解與妥善的處理。而客戶的回應亦是公司持續改善作業流程的重要依據。我們所採用的方式為提供客戶滿意度調查表，其目的為瞭解客戶對公司之具體需求與期望，以及由客戶正式且直接的回應來衡量公司的表現，並指出公司的不足之處，以做為擬定改進策略之根據。

在營業單位的努力下，2025 年期間客戶滿意度調查的各項目平均分數均穩定落在 7.5 分至 9.0 分。每季總體滿意度分數均高於 8.2 分（滿分為 10 分）。



### 6.1.1 客戶隱私權

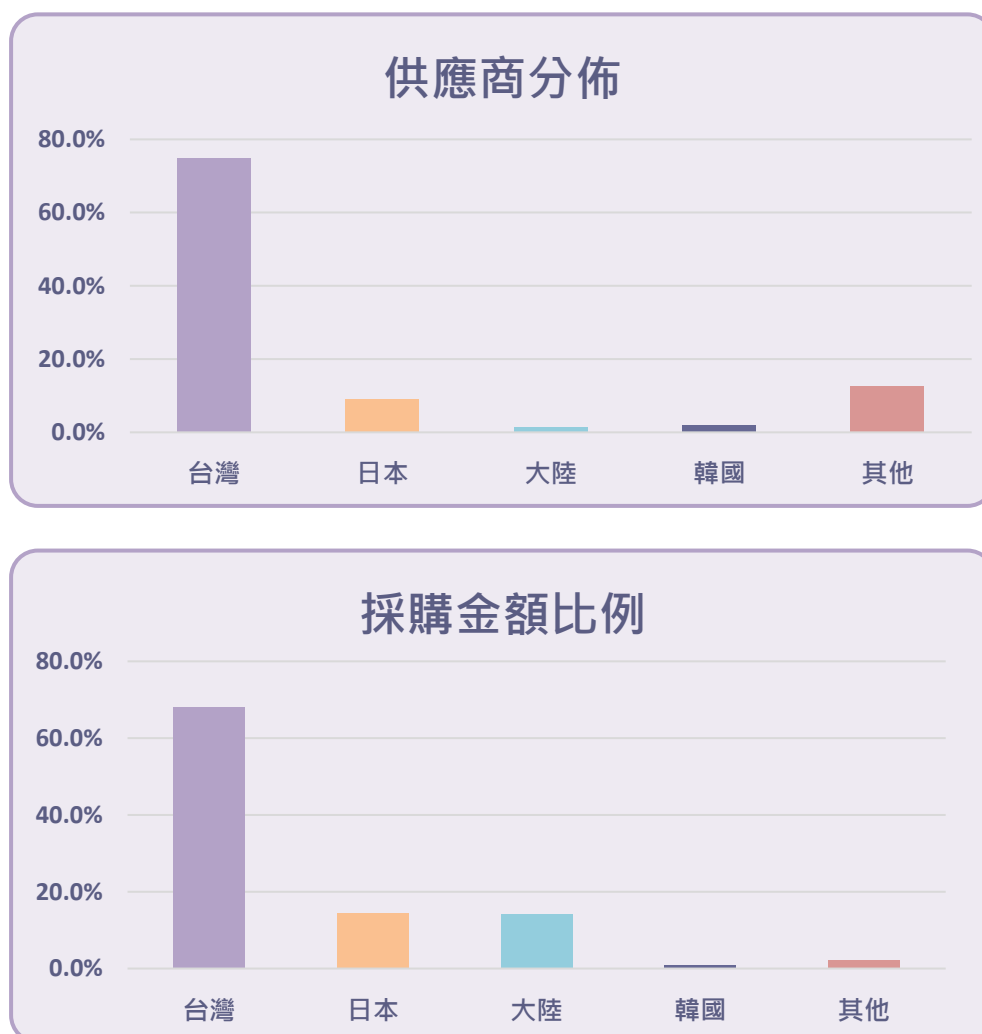
菱生公司重視客戶的機密資料及隱私權，客戶之專有技術、營業秘密、員工個人資料及其他具有機密性或敏感性資料，全體主管及員工均須依據內部守則予以保守與保護。

在管理制度上，對外與客戶簽署保密協議，表達菱生公司對於機密資訊保護之承諾，對

內亦設有文件管理中心，客戶機密資訊一般依照機密等級僅供內部閱讀用，另嚴格管制檔案之提供與列印，以避免客戶機密資料外洩。在嚴密的管理機制下，2025 年期間菱生公司並無任何客戶隱私權或遺失客戶資料之抱怨事件。

## 6.2 供應商管理

供應商為企業營運之重要資源，為確保原物料供應商能持續滿足公司經營策略及作業需求，每月定期檢討供應商品質、價格、交期、服務等各項績效表現；菱生亦致力與國內、外供應商維持長期合作關係，共同建立穩定發展的永續供應鏈。除了兼顧供應商產品之品質、價格及交期外，亦敦促供應商落實環境保護，重視員工安全及衛生，共同善盡企業社會責任。並作好風險管理及永續經營計劃，亦積極推動生產在地化並重視台灣地區供應商發展，目的除了降低運輸成本，並減少碳排放及分散風險。2025 年台灣地區供應商採購家數比例 75%，採購金額比例 68%，菱生將持續扶持台灣供應商並鼓勵國外供應商在台設廠，共同降低生產成本及風險，提昇競爭優勢。



## 6.2.1 供應鏈風險管理

### ■ 核心封裝材料依賴性盤點：

由於 IC 封測之核心封裝材料包含基板、導線架、貴金屬線材、樹脂及製程特殊化學品等。任何關鍵材料的供應中斷或品質變異，皆可能對營運連續性與客戶交付造成重大影響。為此，我們用 ERP 建立關鍵材料清單與多維度追蹤機制，來掌握材料的供應鏈結構、市場供需動態及地緣分布，作為強化供應鏈韌性與風險控管的決策基石。

### ■ 風險識別與評估：

本公司針對地緣政治風險、氣候變遷風險、高度集中風險三大部分，建立常態性的供應鏈風險識別與評估機制，全面掌握關鍵材料供應商在營運連續性上所面臨的潛在威脅。

在「地緣政治風險」方面，因應全球半導體區域化發展與貿易限制，我們密切評估跨境物流中斷、關稅變動及各國政策對關鍵零組件出口的影響。

在「氣候變遷風險」方面，極端氣候引發的洪澇、乾旱及熱浪，常伴隨供應商當地的斷水與斷電危機，進而衝擊其產能與交期；為此，我們評估各生產據點的氣候韌性，並規劃相應的備援方案。

在「高度集中風險」方面，如下表，針對核心材料，皆有二家以上不同國家或生產地的合格供應商可供選擇生產，避免因過度依賴特定地區或單一來源，導致供應鏈在遭遇突發事件時陷入斷鏈僵局，藉此全面強化風險防禦能力。

主要原物料供應來源地理位置

| 材料/製造地             | 台灣 | 日本 | 大陸 | 韓國 | 馬來西亞 | 新加坡 |
|--------------------|----|----|----|----|------|-----|
| 黏著材料               | V  | V  | ◎  |    |      |     |
| 金/銅線               | V  |    |    | ◎  |      | V   |
| 基板                 | ◎  | V  | ◎  |    |      |     |
| 導線架                | ◎  | V  | V  |    | V    | ◎   |
| 樹脂                 | ◎  | V  | V  |    |      |     |
| 上蓋                 | V  |    | ◎  |    |      |     |
| ◎：主要製造地    V：次要製造地 |    |    |    |    |      |     |

## 6.2.2 供應商管理要求

菱生公司要求所有供應商必需遵守當地法規、社會規範和環保要求，並透過菱生供應商審查及認可作業，包括供應商基本資料、產品、生產與檢測設備資訊、主要客戶、財務狀況、環境管理物質不使用證明書、品質管制計劃、採購相關責任、義務之合約及供應商社會責任與環境、安全衛生、勞工人權與勞動條件的規範之調查，以落實環境社會要求。

### ■ 供應商管理調查表

| 面向  | 管理項目           | 依據規範                                   |
|-----|----------------|----------------------------------------|
| 管理面 | 品質、價格、交期、服務、技術 | ISO9001:2015<br>IATF16949:2016 品質系統    |
| 環境面 | 禁用物質、管制物質      | SS-00259/RoHS/REACH/ISO14001<br>國內相關法規 |
| 社會面 | 勞工安全與衛生、道德規範   | ISO45001<br>RBA 責任商業聯盟行為準則             |

菱生公司為提昇供應鏈整體競爭力，每月進行供應商考核（品質、交期、價格、服務）及召開檢討會議，並根據供應商年度考核排定稽核計劃以確保供應商符合需求，讓供應鏈維持最佳競爭力。

菱生公司依據客戶及國際無有害物之標準（例如 RoHS、REACH SVHC...）制定環境物質管理作業準則，並通知供應商，提出以保護環境為訴求之綠色採購政策，要求原物料供應商簽署【環境管理物質不使用證明書】及提供第三認證機構之檢測報告，並透過【供應商認證資料作業系統】每年提醒供應商提供最新測試報告，以達 100%不使用環境禁用物質之目標。

### 6.2.3 供應商評比

- ① 供應商評比對象：主要原物料 ( 黏著材料、金/銅線、上蓋、基板、導線架、樹脂、錫製品 )
- ② 管理單位：資材部採購課
- ③ 執行方式：每月由 ERP 系統收集供應商 ( 品質、交期、價格 ) 實際表現之評分，服務由採購人員依使用單位回覆及供應商配合度予以評分，將評比結果通知供應商並作為採購對策參考，其次依據供應商年度品質評比結果擬定供應商年度稽核計劃。

### 品質評比結果

| 採購對策                   | 2025 | 2024 |
|------------------------|------|------|
| 優先採購                   | 30   | 45   |
| 次優先採購                  | 5    | 11   |
| 減量採購，並要求改善             | 0    | 0    |
| 少量採購，並要求改善 ( 禁止新產品開發 ) | 0    | 0    |
| 要求改善，未改善前不予採購          | 0    | 0    |

### 6.2.4 供應商稽核

菱生公司依據供應商年度稽核計劃及 IATF16949:2016 品質系統/環境管理系統進行，2014 年納入企業社會責任項目，並執行 2025 供應商年度稽核計劃如下，執行結果均能符合菱生品質及環境管理系統之要求

| 2025 稽核計劃 | 導線架 | 基板 | 蓋子 | 樹脂 | 包裝管 |
|-----------|-----|----|----|----|-----|
| 供應商家數     | 8   | 3  | 1  | 3  | 1   |

## 6.2.5 無衝突金屬承諾

### ■ 衝突礦產採購管理政策：

菱生公司為響應國際間對衝突礦產(衝突礦產的定義須參考 OECD 高風險區)管制措施，強列要求供應商所提供的原物料不得直接或間接使用此區域：剛果民主共和國(DRC)、安哥拉(Angola)、布隆迪(Burundi)、中非共和國(Central African Republic)、剛果共和國(Republic of Congo)、盧旺達(Rwanda)、南蘇丹(South Sudan)、坦桑尼亞(Tanzania)、烏干達(Uganda)、贊比亞(Zambia)(聯合國安全理事會認定上述國家皆為剛果礦脈之礦產)之金(Au)、錫(Sn)、鉭(Ta)、鎢(Wu)、鈷(Co)、雲母(Mica)、銅(Cu)、石墨(C)、鋰(Li)、鎳(Ni)。對供應商執行調查，以建立衝突礦產的管理機制。

### ■ 衝突礦產管理流程：

透過調查(CMRT、EMRT、PRT)，菱生收到供應商回覆後，需確認供應商使用的冶煉廠是否為合格冶煉廠；若使用到不合格冶煉廠，需與供應商進行確認並要求須改用合格冶煉廠。

原物料供應商於製程、包裝或產品中含有金(Au)、錫(Sn)、鉭(Ta)、鎢(Wu)、鈷(Co)、雲母(Mica)、銅(Cu)、石墨(C)、鋰(Li)、鎳(Ni)之供應商計 42 家，結果均聲明不直接或間接使用衝突地區金屬材料，未來仍持續要求既有及新供應商確實遵守不使用衝突地區金屬材料，期望供應商與通過獨立第三方稽核計畫檢驗所認可的非衝突冶煉或熔煉廠進行採購。



# 07 社會參與

## 7.1 產學合作

### 7.1.1 產學合作源起

公司一方面考慮到必須解決因應用機、電、光、資訊進行產業升級而產生的人力缺口；另一方面更為了善盡企業社會責任，照顧經濟弱勢家庭有意向學的孩子，因而於 2006 年開始積極參與產學攜手合作計畫。

### 7.1.2 產學合作現況說明

從 2006 年積極推動產學合作至今，合作的學校包括修平科大、僑光科大、勤益科大、大華科大、建國科大，與學校緊密聯繫，不僅成功塑造企業形象、有效回饋地方，更建立人才資料庫，培育優良的儲備種子，與菱生共同成長。

教育部推行的發展典範科技大學計畫中，將實習課程列為必要學分，公司早在 2012 年就積極與學校合作，合作的學校包括僑光科大、勤益科大，近年來公司營運逐年擴張，基層幹部之需求殷切，透過企業實習兼顧工作實務與管理知識，確保公司人力資源銜接無虞。

### ■ 菱生公司產學合作、深耕校園作法

| 項目   | 重點項目 | 內 容                        |
|------|------|----------------------------|
| 產學合作 | 勤益科大 | 開設產學專班                     |
|      | 建國科大 | 開設產學專班                     |
|      | 大華科大 | 開設學分班                      |
|      | 修平科大 | 開設學分班                      |
| 深耕校園 | 校園徵才 | 積極參加各校舉辦校園徵才活動             |
|      | 校園座談 | 安排內部主管到校分享企業理念與半導體相關職涯發展機會 |

|  |         |                                      |
|--|---------|--------------------------------------|
|  | 學校師生訪談  | 讓國內外在校學生提早認識半導體產業工作環境，同時促進產業與學術交流互動。 |
|  | 開放工讀生職缺 | 透過工讀計畫體驗公司實際工作內容、降低學術與實務之落差          |

## 7.2 慈善關懷



### 伊甸社會福利基金會愛心認購-烘焙商品

伊甸庇護工場，給予身障者在就業與生活上專業的支持與服務，伊甸的庇護工場讓無法進入一般職場或支持性就業的身心障礙者，能夠在庇護性就業環境中延續訓練並增進工作技能，開發身障者潛能，給予職能訓練；或是輔以不同的庇護措施，最終都能找到合適的工作機會。

伊甸始終相信透過支持與輔導，身心障礙朋友也能自力更生，重返社會，體現「天生我才必有用」的真諦。企業做公益可以不一樣，給魚吃不如教釣魚，菱生選擇將部分資源投入支持社會企業，創造自給自足的永續環境。藉由長期訂購伊甸的烘焙商品，提供伊甸庇護工場最大的支援，使身障者建立一己謀生之力，也讓身障者完整接軌社會貼近社會。

## 伊甸基金會

已故的身障作家 - 劉俠女士，因著上帝的呼召及一顆愛身心障礙者的同理心，捐出多年稿費，和六位志同道合的朋友，創辦了屬於身心障礙朋友的伊甸園-「伊甸基金會」。伊甸秉持「服務弱勢、見證基督、推動雙福、領人歸主」的理念，提供身心障礙朋友各項社會福利服務，並傳達基督救贖的訊息，落實福利與福音並重的使命。從為身障者發聲爭取權益，到進入非營利事業管理模式，進而跨入國際，伊甸目前在全國超過 100 個服務據點，每年服務 6 萬個身心障礙及弱勢家庭。

伊甸針對兒童、身心障礙者、老人等不同服務對象，提供直接與專業的社會服務，從成年身心障礙者職訓、就業輔導、心靈重建開始，進而延伸至發展遲緩兒的早期療育服務，以及高齡老人居家照顧。伊甸秉持著「全人全生涯關懷」，提供服務使用者身、心、靈的支持。



### 感謝狀

伊甸台中分會字第 114176003 號

茲感謝 **菱生精密工業股份有限公司**  
長期訂購台中市迎南園烘焙庇護工場西  
點餐盒，造福身心障礙朋友，此仁心義  
行，可為社會大眾之表率特此致狀，以資  
讚揚。

財團法人伊甸社會福利基金會

董事長 **陳宇昭**

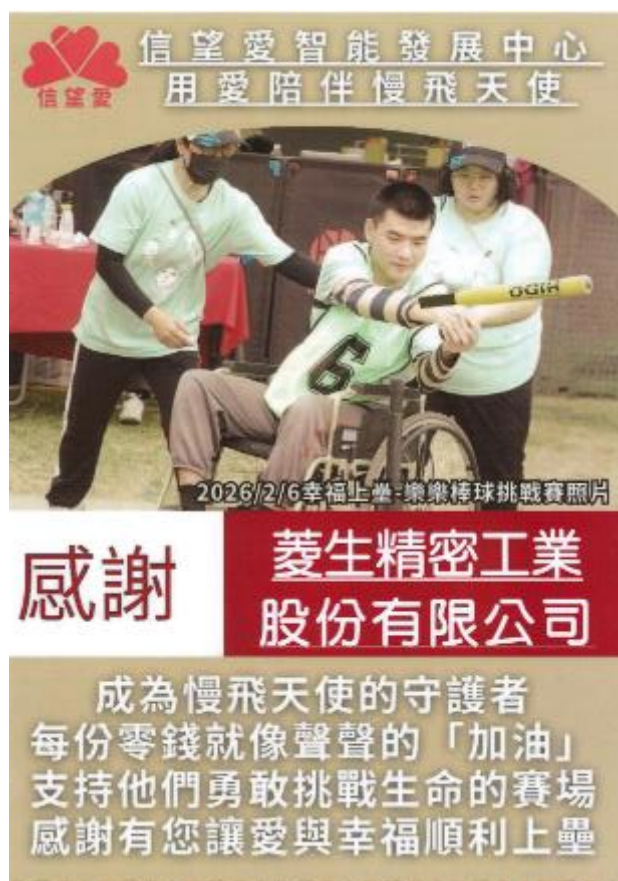
中華民國 一四 年 十 月 七 日



## 財團法人臺中市私立信望愛智能發展中心-愛心發票箱

不一樣的孩子不一樣的美好，林寶珍女士因難產產下一名腦性麻痺的女兒，有感當年台中縣內無專門為心智障礙者服務的民間機構，家長多得舟車勞頓，耗費大半天時間前往都會地區，只為讓孩子能接受 1、2 個小時的復健服務。

於是，她開始有了成立身心障礙福利機構的念頭。於是，在民國 82 年底，七位家有心智障礙兒的爸爸媽媽，以家長身份創立了「信望愛智能發展中心」，在大臺中地區陸續設立多個社區化的小型服務據點；多年來，已為近萬名身障兒及其家庭提供專業服務，信望愛的標誌由三顆心並連而成。中間代表著身心障礙者的不完整，延伸出家長團體之期待，兩旁的愛心則代表社會大眾及政府的呵護與支持，讓身心障礙者日漸成長茁壯，就如同信望愛的核心價值：「愛」與「陪伴」。



菱生公司與信望愛配合長期於公司設置愛心發票箱，邀請同仁隨手做公益，愛心捐發票，貢獻一分心力。

# 08 公司概況

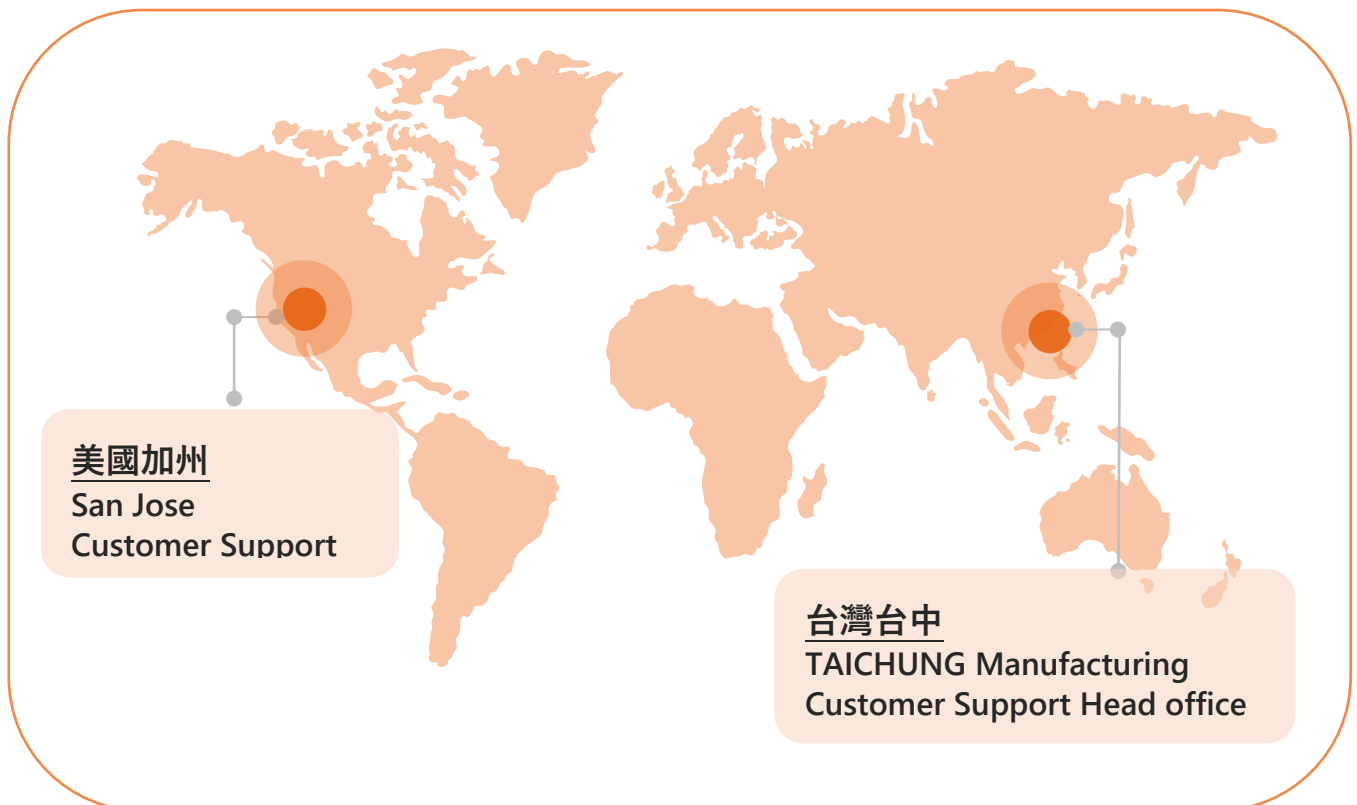
## 8.1 關於菱生

菱生精密工業股份有限公司於民國六十二年成立，營業主要內容為「積體電路及各種半導體零組件之封裝加工、測試」。菱生精密的研發及製造團隊不論是高品質的生產線或是流程的信賴性...等均獲世界各地企業的好評，精密的封裝能力已通過美國、歐洲、日本及中國等亞洲企業之認證。

目前菱生公司台中廠擁有五棟生產大樓、一棟原物料倉庫，共佔地 107,444 平方公尺。生產廠區具有最新進的高科技生產設備從事封裝及測試的生產，並有充份的產能生產 Dual Family、Quad Family、Under lead Family、Optics Family、Discrete Family、MEMS 等系列封裝產品。

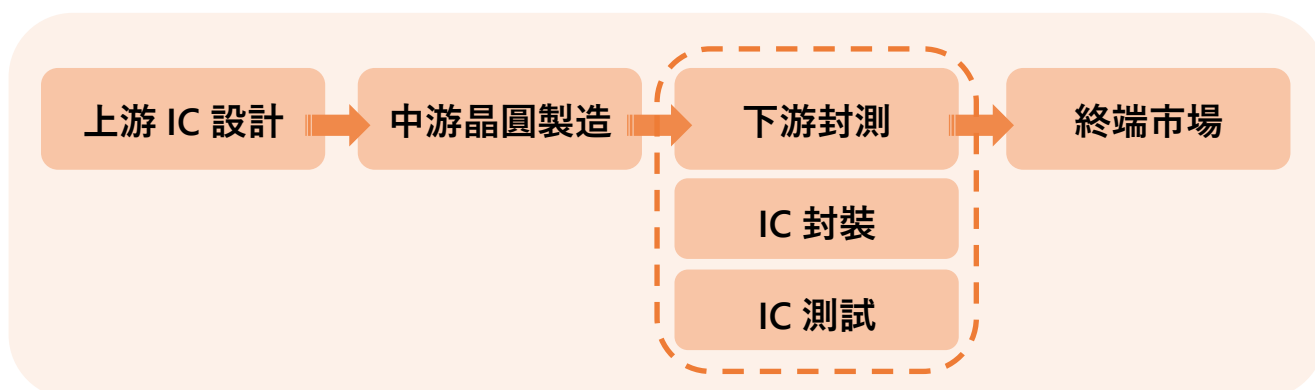
### ■ 生產與營運據點

本公司立基於台灣，客戶服務據點包含台灣台中、美國加州。目前總公司位於台中市潭子區，生產中心為台中廠。



## 服務範圍

在半導體產業結構中，本公司負責之業務為下游之封裝與測試，提供客戶 IC 封裝及測試之服務。



## 公司簡介

|            |                      |
|------------|----------------------|
| 公司名稱       | 菱生精密工業股份有限公司         |
| 創立日期       | 民國 62 年              |
| 產業類別       | 積體電路之封裝、測試           |
| 營運總部       | 位於台灣臺中潭子科技產業園區       |
| 董事長        | 葉樹泉                  |
| 總經理        | 蔡澤松                  |
| 揭露範圍內員工總人數 | 2,318 人(2025/12/31)  |
| 菱生股票代號     | 2369 (台灣證券交易所股票上市公司) |
| 資本額        | 3,801,023,440 元      |

## 8.2 經營理念

菱生全體員工秉持「積極創新」、「誠信務實」、「卓越共享」的經營理念，從上至下群策群力，同心協力，對於本業不斷積極創新，對客戶誠信務實，對於公司同仁卓越共享，一同與公司、客戶、員工創造三贏局面。



卓越共享



誠信務實



積極創新

## 8.3 經營概況

### 8.3.1 技術及研發概況

菱生公司 2025 年研發費用 0.81506 億元佔營收比例 1.68%。菱生公司規模雖未能與世界級封裝廠比擬，在封裝技術領域方面我們擁有經驗豐富的研發與工程單位，持續在封裝構裝技術上不斷精進。本公司除傳統封裝產品外，堆疊技術、多晶片模組、系統封裝，與 MEMS 元件封裝等技術已成熟量產中；其中 MEMS 元件因輕、薄、短、小且具備感知、運算和動作等多功能，應用層面廣泛，市場需求極具潛力；本公司因應歐盟的「廢電機電子產品回收 (WEEE)」、「電機電子產品禁止使用有害物質 (RoHS)」和「耗能產品生命週期綠色設計 (EuP)」等綠色環保指令要求，本公司產品已導入綠色工廠生產，致力於環保構裝。

### 8.3.2 經營實績

#### 近五年之財務績效表

| 經營績效項目      | IFRS      |           |           |           |           |
|-------------|-----------|-----------|-----------|-----------|-----------|
|             | 2021      | 2022      | 2023      | 2024      | 2025      |
| 營業收入        | 6,489,676 | 5,113,539 | 4,725,754 | 4,611,858 | 4,838,933 |
| 本期損益        | 873,849   | 207,291   | (156,458) | (168,228) | (394,253) |
| 每股盈餘(虧損)(元) | 2.35      | 0.56      | (0.42)    | (0.45)    | (1.05)    |
| 股東權益報酬率(%)  | 16.18     | 3.58      | (2.80)    | (3.13)    | (7.82)    |
| 資產總額        | 8,399,125 | 7,781,781 | 6,939,505 | 6,617,766 | 6,733,200 |
| 資本支出        | 1,120,226 | 568,756   | 177,483   | 112,530   | 394,463   |
| 負債比(%)      | 30.31     | 26.60     | 21.51     | 20.23     | 28.69     |
| 研發費用        | 143,554   | 131,024   | 101,360   | 94,995    | 81,506    |

單位：新台幣仟元

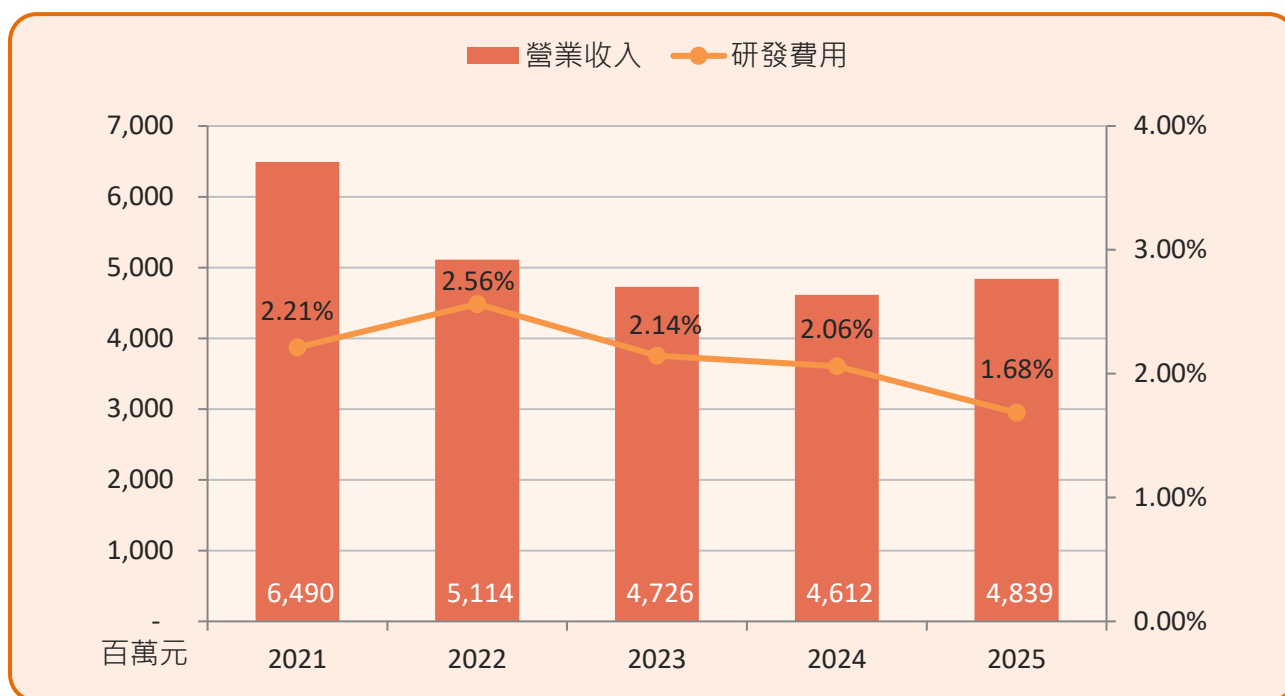
#### 近三年產品銷售數量

|    | 2023 年    | 2024 年    | 2025 年    |
|----|-----------|-----------|-----------|
| 封測 | 4,509,276 | 4,706,439 | 5,148,072 |
| 其他 | 註 1       | 註 1       | 註 1       |
| 合計 | 4,509,276 | 4,706,439 | 5,148,072 |

註 1：因數量單位不一致，故不揭露數量。

單位：仟顆

## 近五年之財務績效圖表



### 8.3.3 未來公司發展策略

- (一) 提供客戶全方位服務，積極客戶開發與關係管理。
- (二) 致力環境保護，遵循環保法規，全面導入綠色構裝產品。
- (三) 積極創新、領先開發新技術、新產品符合市場動脈與需求。
- (四) 持續強化既有產線成本費用管控。
- (五) 深耕於「企業治理、企業承諾、社會參與、環境保護」四大企業社會責任領域。

### 8.3.4 參與外部組織

#### 參與各種外部組織之會員

##### 菱生公司參與外部組織

◆ 中華民國半導體產業協會

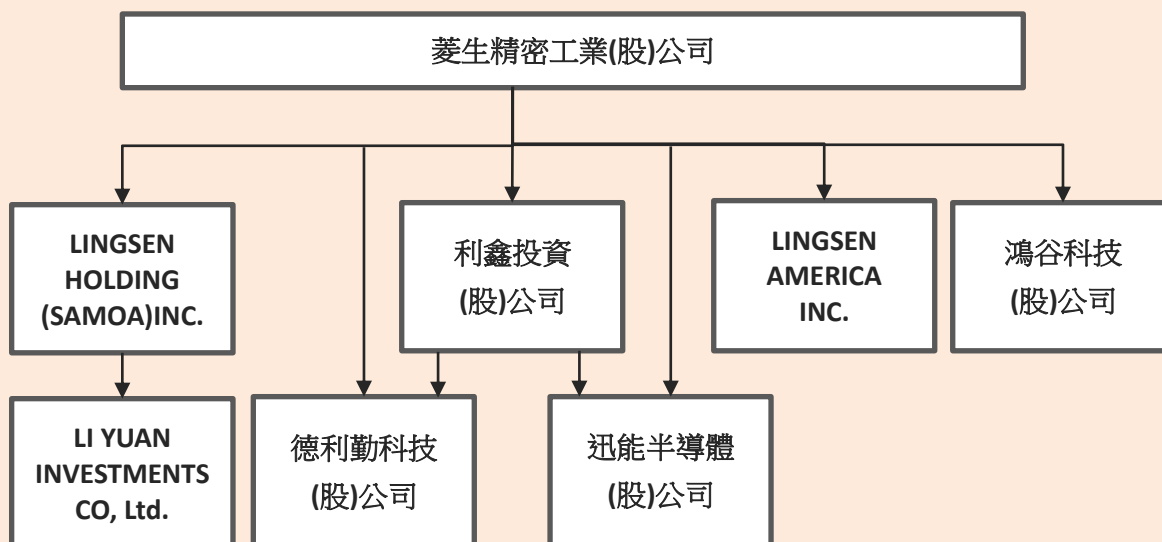
◆ 電機電子工業同業公會

◆ 台灣光電半導體產業協會

◆ 臺中港科技產業園區廠商協進會

### 8.3.5 關係企業

#### 關係企業組織圖



#### 關係企業基本資料

| 企業名稱                          | 設立日期      | 地址                                                                                                                                         | 主要營業或生產項目    |
|-------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Lingsen America Inc.          | 87 年 3 月  | 1525 McCarthy Blvd Ste 1000, Milpitas, CA 95035 California, USA                                                                            | 仲介業務         |
| 利鑫投資(股)公司                     | 87 年 10 月 | 台中市潭子區南二路五之一號                                                                                                                              | 一般投資業        |
| 德利勤科技(股)公司                    | 90 年 3 月  | 新竹縣湖口鄉新竹工業區光復路 32 之 1 號 5 樓                                                                                                                | 電子材料批發及零組件製造 |
| Lingsen Holding(Samoa)Inc.    | 90 年 8 月  | Portcullis TrustNet Chambers, P.O. Box 1225, Apia, Samoa                                                                                   | 一般投資業        |
| Li Yuan Investments Co., Ltd. | 90 年 5 月  | 4th Floor, Harbour Place, 103 South Church Street, George Town, P.O. Box 10240, Grand Cayman KY1-1002, Cayman Islands, British West Indies | 一般投資業        |
| 鴻谷科技(股)公司                     | 86 年 5 月  | 新竹縣湖口鄉光復路 32 之 1 號                                                                                                                         | 積體電路之測試      |
| 迅能半導體(股)公司                    | 96 年 11 月 | 新竹縣湖口鄉光復路 32 之 1 號 5 樓                                                                                                                     | 電子零組件製造      |

註：係截至 2025 年 12 月 31 日止

## 8.4 市場概況

根據Gartner 預測，受惠於AI半導體需求和記憶體價格上漲的推動，2025年全球半導體營收達7,930億美元，年成長率21%，2026年將持續此一趨勢，朝1兆美元大關突破。台灣半導體產業發展至今，已成為全球高科技創新研發的重要夥伴與後盾。台灣IC產業上下游產業鏈完整，從上游IC設計到下游IC製造與IC封測，專業分工模式獨步全球。

IEK 預估民國115 年台灣IC 產業的總產值達新台幣77,150億元，較114年成長18.3%。主要受惠於AI應用日益多元，AI手機、AI PCs等新產品的陸續推出，帶動了先進製程和相關封測業務的擴展，讓台灣半導體產業保持穩定的成長。

### 8.4.1 未來市場供需狀況與成長性

在人工智慧需求強勁帶動下，全球半導體產業迎來歷史性成長。根據世界半導體貿易統計組織(WSTS)公布的最新數據，2025年全球半導體年營收達7,917億美元，年增25.6%，主要受惠邏輯和記憶體市場得益於人工智慧應用及資料中心基礎設施強勁需求。

展望2026年，WSTS預期，全球半導體營收可望再成長26.3%，全球半導體銷售額預計達到9,999億美元。受惠AI、高效能運算(HPC)、電動車等新應用的發展，推升高階晶片需求，為驅動這一波半導體持續創新發展的主要力量。

## 9.1 公司治理原則

本公司根據中華民國公司法、證券交易法及相關公司治理法規，制定公司章程及公司組織架構。菱生公司建立之公司治理制度，除遵守法令及章程之規定外，並依下列原則為之：

一、建置有效的公司治理架構

四、發揮審計委員會功能

二、保障股東權益

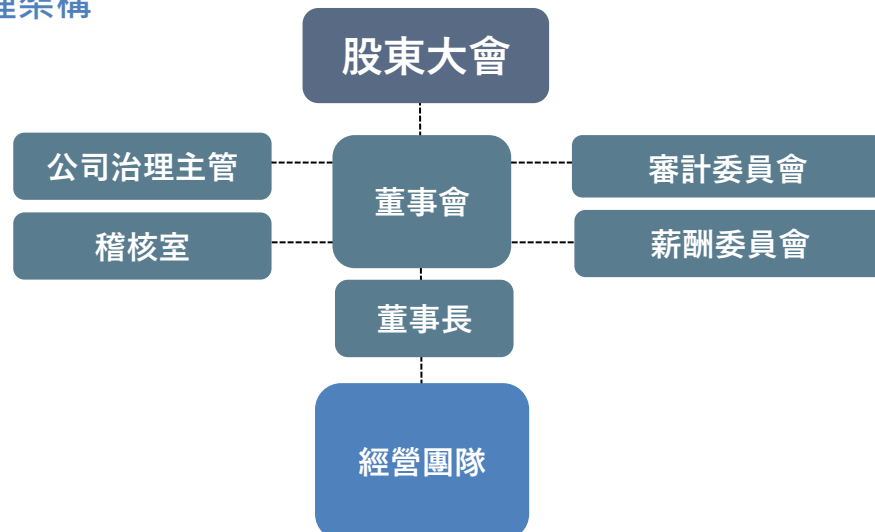
五、尊重利害關係人權益

三、強化董事會職能

六、提昇資訊透明度

## 9.2 公司治理概況

### 9.2.1 公司治理架構



本公司之治理架構最高階層為股東大會及董事會。基於保護股東的基本權利和決策參與權，及公平對待所有的大小股東及外國股東之原則，股東可透過股東大會行使表決權，參與公司重大經營決策。此外，於董事會的策略性指導及有效性監督之下，就利害關係人之法定權益與角色在創造財富、工作及健全財務等方面積極合作，並確保有關公司財務狀況、績效、所有權及其他重大資訊之正確揭露及透明性。

## 9.2.2 董事會及監察人

| 職稱   | 姓名  | 性別 | 選(就)任日期    | 任期  | 初次選任日期     | 主要經(學)歷                                                    |
|------|-----|----|------------|-----|------------|------------------------------------------------------------|
| 董事長  | 葉樹泉 | 男  | 2025.05.29 | 3 年 | 1987.04.30 | 台灣大學心理系畢業<br>本公司董事長                                        |
| 董事   | 蔡澤松 | 男  | 2025.05.29 | 3 年 | 2019.06.12 | 輔仁大學物理系畢業<br>本公司總經理                                        |
| 董事   | 楊順卿 | 男  | 2025.05.29 | 3 年 | 2011.06.15 | 文化大學物理系畢業<br>矽品精密工業(股)公司協理<br>菱生精密工業(股)公司總經理               |
| 董事   | 方彬文 | 男  | 2025.05.29 | 3 年 | 2019.06.12 | 淡水工商工業管理科<br>以利德企業管理顧問(股)公司董事長<br>名園運動休閒(股)公司董事長           |
| 董事   | 魏平祺 | 男  | 2025.05.29 | 3 年 | 2016.06.15 | 政治大學財稅系<br>紐約大學企管碩士<br>福助針織(股)公司董事、總經理<br>金福隆實業(股)公司董事、總經理 |
| 董事   | 葉德彤 | 女  | 2025.05.29 | 3 年 | 2025.05.29 | 聖安德魯斯大學心理學碩士<br>璽鈞投資(股)公司董事長                               |
| 獨立董事 | 溫順德 | 男  | 2025.05.29 | 3 年 | 2025.05.29 | 中正大學企管碩士<br>歷任財政部中區國稅局彰化分局長、<br>豐原分局長                      |
| 獨立董事 | 李育賢 | 男  | 2025.05.29 | 3 年 | 2025.05.29 | 交通大學電子物理博士<br>薇順國際(股)公司董事                                  |
| 獨立董事 | 王癸元 | 男  | 2025.05.29 | 3 年 | 2025.05.29 | 臺灣科技大學管理學博士<br>亞洲大學副教授                                     |

## 董事會職責

本公司於 2025 年 5 月 29 日股東常會選出第二十一屆董事。董事會成員本著忠誠、謹慎及高度注意的態度以公司利益為前提，對於評估公司經營策略、風險管理、年度預算、業務績效及監督主要資本支出、併購與投資處分等重大事項須善盡職責，同時應確保公司會計系統和財務報告之適正性，並避免有董事會成員損及公司之行為或與股東間發生利益衝突之情事。董事會應審慎選任、監督經營階層，對公司事務進行客觀判斷，以及遴選適任之內部稽核主管，確保內部控制之有效性，俾防範弊端。

本公司目前至少每季召開一次董事會，由公司經營階層向董事會報告經營績效，並由董事會決定未來的經營方針及重大政策。董事會下設有稽核室、審計委員會及審議高階經理人薪酬之薪酬委員會。透過稽核室、審計委員會及薪酬委員會之審查及建議，提報董事會討論，協助董事會之決策。

### 9.2.3 董事進修

菱生公司董事均具有產業背景及經營管理實務經驗，並持續參加進修專業技能及永續發展相關進修課程，以強化董事會職能及增進交流。2025 年董事會成員進修情形，詳細資訊請參公開資訊觀測站。

### 9.2.4 董事會利益迴避原則

菱生公司依據「公開發行公司董事會議事辦法」訂有「董事會議事規範」，董事對於利害關係議案，均依照規範在議案討論及表決時迴避。

### 9.2.5 薪酬委員會

## 委員會成員

本公司於 2011 年 12 月 8 日董事會通過設立薪資報酬委員會及其規程，其成員專業資格、職權之行使、組織規程之訂定及相關事項應依「股票上市或於證券商營業處所買賣公司薪資報酬委員會設置及行使職權辦法」之規定辦理。現任委員名單如下：

| 職稱  | 姓名  | 就任日期      | 2025 年實際出席(列)席率% |
|-----|-----|-----------|------------------|
| 召集人 | 溫順德 | 2025.5.29 | 100%             |
| 委員  | 李育賢 | 2025.5.29 | 100%             |
| 委員  | 王癸元 | 2025.5.29 | 100%             |

## ■ 薪酬委員會主要職責

- 01 / 定期檢討本公司薪資報酬委員會組織規程並提出修正建議。
- 02 / 訂定並定期檢討本公司董事、經理人年度及長期之績效目標與薪資報酬之政策、制度、標準與結構。
- 03 / 定期評估本公司董事、經理人之績效目標達成情形，並訂定其個別薪資報酬之內容及額數。

### 9.2.6 內部稽核

為健全公司經營，協助董事會及管理階層確實履行其責任，公司應建立完備之內部控制制度，並確實有效執行。菱生之內部稽核藉審閱、覆核公司內部控制是否充分與有效，確實辦理自行評估作業，以協助董事會及管理階層確保財務、管理、營運資訊之正確性、可靠性與及時性。董事會及管理階層亦每年檢討各單位自行查核結果及稽核單位之稽核報告，作成內部控制聲明書按期陳報主管機關。此外內部稽核單位亦不定期稽核公司各部門是否遵循相關法令及規定。完成各項定期及不定期稽核之結果呈報董事會，並持續追蹤檢討後續各項改善措施。

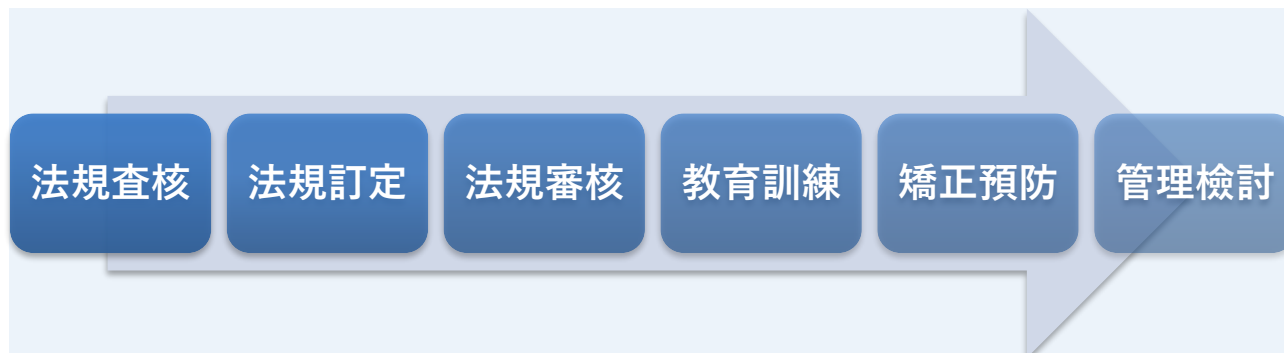
### 9.2.7 提昇資訊透明度

本公司設有發言人制度並妥善利用公開資訊觀測站，使股東及利害關係人能充分瞭解公司之財務業務狀況，以及實施公司治理情形均依證券交易法第三十六條之規定揭露財務資訊及對股東權益之影響。遇有重大影響股東權益之重大訊息，均及時公告於公開資訊觀測站，避免股東權益受損。

## 9.3 道德規範管理(商業行為與道德準則)

為確保公司永續經營與發展，菱生精密本著廉潔、透明之經營理念，制定以誠信為基礎政策，建立良好之公司治理與風險管控機制，讓誠信經營之企業文化持續深根與傳承。菱生已於 2014 年制定「誠信經營守則」與「道德行為守則」供所有董事、經理人及公司同仁遵循，從企業由上到下，提昇公司及全體同仁行為素養以及從業道德。

## ■ 規範制定與遵循



相關法規連結：請參閱公司治理規章

<http://www.lingsen.com.tw/webc/html/investor/CorporateGovernance.aspx?#IR33>

## ■ 教育訓練

為使全公司同仁了解「誠信經營守則」與落實「道德行為守則」準則，所有的新進同仁（100%）必在新人訓練中接受相關教育訓練與宣導，訓練內容包含禁止不誠信、禁止不當利益、禁止行賄受賄、懲戒措施..等重要課題。

## ■ 違規統計狀況

菱生公司每年度會定期召開「員工行為道德管理目標訂定會議」，檢討員工當年度違反件數與狀況，檢討守則內容增修必要性，同時訂定下一年度目標。

2025 年道德規範違反件數「0 件」，2026 年目標「0 件」。

## ■ 申訴管道

防止及避免重大不當行為，並鼓勵與員工及第三人之開放溝通，當有疑問、發現時或遇有任何有關於工作場所中的不平等待遇時，得以下列方式提出檢舉：

### ◆ 內部

總經理信箱（各廠區實體信箱）

人資電子郵件信箱：[graceliu@lingsen.com.tw](mailto:graceliu@lingsen.com.tw)

### ◆ 外部

總經理室電子郵件信箱：[rogerliu@lingsen.com.tw](mailto:rogerliu@lingsen.com.tw)

# 10 附 錄

## 10.1 關於本報告書

菱生精密工業股份有限公司自 2013 年起發行「企業社會責任報告書」，並於 2022 年依政府規定更名為「永續報告書」，完整揭露菱生在營運上對於環境 ( Environmental )、社會 ( Social ) 與公司治理 ( Governance )、ESG 三大面向所帶來的衝擊及永續議題相關資訊。菱生公司對於環境保護、社會公義與員工福利等議題持續關注給予各利害關係人。

### ■ 範疇

本報告書涵蓋 2025 年 1 月 1 日至 2025 年 12 月 31 日菱生公司經營發展與利害關係人相關的永續經營議題。揭露範圍為台灣總公司的台中廠 ( 不含台灣的子公司 )。財務報表的數字以新台幣計算。本報告書每年更新一次。本年度「2025 年永續報告書」無資訊重編情形。

### ■ 撰寫原則與綱領

菱生公司依循 GRI STANDARDS 準則永續性報告指南；作為資訊揭露的基礎，透過實質性分析了解利害關係人所關注的議題，作為此企業社會責任報告書的內容架構。可參閱本報告附錄中的全球永續性報告指標 GRI Standards 對照表。

### ■ 聯絡資訊

菱生精密工業股份有限公司

台中市潭子區南二路 5-1 號

Tel : +886-4-2533-5120

Fax : +886-4-2532-7904

Email : LeoLiu@lingsen.com.tw

## 10.2 全球永續性指標(GRI Standards)對照表

| 準則             | 指標主要內容           | 報告書章節/附註        | 頁碼 |
|----------------|------------------|-----------------|----|
| GRI1：基礎 2021   |                  |                 |    |
| GRI2：一般揭露 2021 |                  |                 |    |
| 1. 組織及報導實務     |                  |                 |    |
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| 準則                      | 指標主要內容                   | 報告書章節/附註        | 頁碼 |
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## 10.3 SASB對照表-半導體業

| 主題              | 指標代碼         | 揭露指標                                              | 報告書章節/附註                    | 頁碼       |
|-----------------|--------------|---------------------------------------------------|-----------------------------|----------|
| 溫室氣體排放          | TC-SC-110a.1 | (1)範疇 1 排放之全球總排放量及(2)來自全氟化合物之總排放量                 | 3.2 碳排放管理<br>3.5 空污及廢棄物回收管理 | 15<br>25 |
|                 | TC-SC-110a.2 | 對管理範疇 1 排放之長期及短期策略或計畫、排放減量目標以及針對該等目標之績效分析之討論      | 10.5 上市上櫃公司氣候相關資訊           | 80       |
| 製造之能源管理         | TC-SC-130a.1 | (1)總能源消耗量、(2)電網電力百分比及(3)再生百分比                     | 3.2 碳排放管理                   | 15       |
| 水管理             | TC-SC-140a.1 | (1)總取水量，於基線水壓力高或極高區域之百分比；(2)總耗水量，於基線水壓力高或極高區域之百分比 | 3.6 水資源管理                   | 30       |
| 廢棄物管理           | TC-SC-150a.1 | (1)來自製造之有害廢棄物重量、(2)再循環百分比                         | 3.5 空污及廢棄物回收管理              | 25       |
| 勞工健康與安全         | TC-SC-320a.1 | 為評估、監控及減少勞工暴露於人類健康危害所作之努力之描述                      | 5.3 職業安全與衛生                 | 46       |
|                 | TC-SC-320a.2 | 與違反員工健康與安全相關之法律程序所造成之貨幣性損失總額                      | 5.3 職業安全與衛生                 | 46       |
| 招募及管理全球性與具技術之勞工 | TC-SC-330a.1 | 需要工作簽證之員工百分比                                      | 5.2 平等雇用機會、限制勞動             | 42       |
| 產品生命週期管理        | TC-SC-410a.1 | 含有 IEC 62474 應申報物質之產品收入百分比                        | 0%                          | -        |
|                 | TC-SC-410a.2 | (1)伺服器、(2)桌上型電腦及(3)筆記型電腦於系統層級之處理器能源效率             | 本公司非終端產品生產者，故不適用此項指標。       | -        |
| 材料取得            | TC-SC-440a.1 | 與關鍵材料之使用相關之風險管理之描述                                | 6.2 供應商管理                   | 54       |
| 智慧財產權保護與競爭行為    | TC-SC-520a.1 | 與反競爭行為法規相關之法律程序所造成之貨幣性損失總額                        | 2025 年菱生無發生與反競爭行為條例相關的法律訴訟  | -        |

## 10.4 永續揭露指標-半導體業

| 編號 | 指標                                       | 指標種類 | 單位               | 年度揭露情形                                                                |
|----|------------------------------------------|------|------------------|-----------------------------------------------------------------------|
| 1  | 消耗能源總量、外購電力百分比及再生能源使用率                   | 量化   | 十億焦耳 (GJ)、百分比(%) | 1.消耗能源總量：418,845.9888 十億焦耳(GJ)<br>2.外購電力百分比：100%<br>3.再生能源使用率：0.4031% |
| 2  | 總取水量及總耗水量                                | 量化   | 千立方公尺 (1000m³)   | 1.總取水量：1,014.7540 千立方公尺<br>2.總耗水量：205.8430 千立方公尺                      |
| 3  | 所產生有害廢棄物之重量及回收百分比                        | 量化   | 公噸 (t)、百分比(%)    | 1.有害廢棄物重量：92.4600 公噸<br>2.有害廢棄物回收百分比：0%                               |
| 4  | 說明職業災害類別、人數及比率                           | 量化   | 數量、比率(%)         | 1.職業災害類別：無<br>2.職業災害人數：0 人<br>3.職業災害人數比率：0%                           |
| 5  | 產品生命週期管理之揭露：含報廢產品及電子廢棄物之重量以及再循環之百分比(註 1) | 量化   | 公噸 (t)、百分比(%)    | 無，由於本公司非終端產品生產者，故不適用此項指標。                                             |
| 6  | 與使用關鍵材料相關的風險管理之描述                        | 質化描述 | 不適用              | 請參考 6.2 供應商管理                                                         |
| 7  | 因與反競爭行為條例相關的法律訴訟而造成的金錢損失總額               | 量化   | 報導貨幣             | 2025 年菱生無發生與反競爭行為條例相關的法律訴訟                                            |
| 8  | 依產品類別之主要產品產量                             | 量化   | 依產品類型而不同         | 菱生封測服務 5,148,072 仟顆                                                   |

註 1：包含下腳料賣出或其他回收處理，應提供相關說明。

## 10.5 上市上櫃公司氣候相關資訊

### 10.5.1 氣候相關資訊執行情形

| 項 目                                        | 執 行                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                     |                  |                        |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|------------------------|------|--------------------------|---------------------|-----------|---------------|-----------|--------------------|---------------|------------------------|-----------|----------------|------------------|---------|
| 1. 敘明董事會與管理階層對於氣候相關風險與機會之監督及治理。            | <p>氣候治理機制與架構</p> <p>在推動氣候變遷與永續管理策略上，由董事會扮演督導角色，授權本公司「企業永續委員會」，協助監督企業永續及氣候變遷相關作為；由總經理擔任代表的「企業永續委員會」做為跨部門溝通平台，整合氣候行動資源，主導氣候變遷調適與減緩管理措施，並定期向董事會報告氣候相關議題進程。</p> <p>永續發展委員會下設有環境管理(次)委員會，由高階主管領導，定期召開節能減碳會議，負責提升環境管理績效、擬定管理方案、檢視執行狀況與未來計畫。</p> <p>結合審計委員會及公司內稽內控功能，確保營運相關之各項作業與風險均已獲有效管控。</p>                                                                                                                                                                                                                                             |                     |                  |                        |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
| 2. 敘明所辨識之氣候風險與機會如何影響企業之業務、策略及財務(短期、中期、長期)。 | <p>本公司根據發生時間定義短期為未來 3 年內、中期為未來 5 年內、長期為未來 5 年以上。</p> <p><b>(1)轉型風險 於「營運排放量減量」議題，對本公司未來營運及財務影響如下：</b></p> <table><tr><th>氣候風險</th><th>風險描述</th><th>營運影響</th><th>財務影響</th></tr><tr><td>溫室氣體排放上升、溫室氣體排放減量法規及其他要求</td><td>預估因強制法規實施，致相關因應成本增加</td><td>受碳價法規管制</td><td>●繳交碳費成本增加。</td></tr><tr><td>客戶對節能減碳要求</td><td>自願性減量，以符合趨勢或客戶要求</td><td>減碳設備設置；再生能源採購</td><td>●運轉成本增加。<br/>●綠電採購成本增加。</td></tr><tr><td>電力供應短缺或中斷</td><td>不穩定的電力供應，產能受阻</td><td>影響公司營運及滿足客戶需求的能力</td><td>●營收減少。</td></tr></table> <p>關鍵因應策略：設定積極減碳目標，致力推動溫室氣體減量。</p> | 氣候風險                | 風險描述             | 營運影響                   | 財務影響 | 溫室氣體排放上升、溫室氣體排放減量法規及其他要求 | 預估因強制法規實施，致相關因應成本增加 | 受碳價法規管制   | ●繳交碳費成本增加。    | 客戶對節能減碳要求 | 自願性減量，以符合趨勢或客戶要求   | 減碳設備設置；再生能源採購 | ●運轉成本增加。<br>●綠電採購成本增加。 | 電力供應短缺或中斷 | 不穩定的電力供應，產能受阻  | 影響公司營運及滿足客戶需求的能力 | ●營收減少。  |
|                                            | 氣候風險                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 風險描述                | 營運影響             | 財務影響                   |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|                                            | 溫室氣體排放上升、溫室氣體排放減量法規及其他要求                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 預估因強制法規實施，致相關因應成本增加 | 受碳價法規管制          | ●繳交碳費成本增加。             |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|                                            | 客戶對節能減碳要求                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 自願性減量，以符合趨勢或客戶要求    | 減碳設備設置；再生能源採購    | ●運轉成本增加。<br>●綠電採購成本增加。 |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|                                            | 電力供應短缺或中斷                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 不穩定的電力供應，產能受阻       | 影響公司營運及滿足客戶需求的能力 | ●營收減少。                 |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|                                            | <p><b>(2)實體風險</b></p> <table><tr><th>氣候風險</th><th>風險描述</th><th>營運影響</th><th>財務影響</th></tr><tr><td>乾旱</td><td>水源供應短缺或中斷，影響生產</td><td>生產中斷</td><td>●營運中斷，造成營收減少。</td></tr><tr><td>淹水</td><td>強降雨導致排水系統超過負荷，造成淹水</td><td>生產中斷</td><td>●廠區設備受損及員工無法上工，使營運成本增加</td></tr><tr><td>高溫</td><td>氣溫上升，用電與碳排放量上升</td><td>耗電及電費增加</td><td>●用電成本上升</td></tr></table> <p>關鍵因應策略：建立水情監控機制與緊急應變程序，並定期演練。由高階主管領導溫室氣體減量行動。</p>                                                                                                                          | 氣候風險                | 風險描述             | 營運影響                   | 財務影響 | 乾旱                       | 水源供應短缺或中斷，影響生產      | 生產中斷      | ●營運中斷，造成營收減少。 | 淹水        | 強降雨導致排水系統超過負荷，造成淹水 | 生產中斷          | ●廠區設備受損及員工無法上工，使營運成本增加 | 高溫        | 氣溫上升，用電與碳排放量上升 | 耗電及電費增加          | ●用電成本上升 |
|                                            | 氣候風險                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 風險描述                | 營運影響             | 財務影響                   |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|                                            | 乾旱                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 水源供應短缺或中斷，影響生產      | 生產中斷             | ●營運中斷，造成營收減少。          |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|                                            | 淹水                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 強降雨導致排水系統超過負荷，造成淹水  | 生產中斷             | ●廠區設備受損及員工無法上工，使營運成本增加 |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|                                            | 高溫                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 氣溫上升，用電與碳排放量上升      | 耗電及電費增加          | ●用電成本上升                |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|                                            | <p><b>(3)機會</b></p> <table><tr><th>氣候風險</th><th>風險描述</th><th>營運影響</th><th>財務影響</th></tr><tr><td>減排措施提升生產效率</td><td>汰換高耗能設備</td><td>提升能資源使用效率</td><td>●節省營運成本</td></tr></table>                                                                                                                                                                                                                                                                                                                                                       | 氣候風險                | 風險描述             | 營運影響                   | 財務影響 | 減排措施提升生產效率               | 汰換高耗能設備             | 提升能資源使用效率 | ●節省營運成本       |           |                    |               |                        |           |                |                  |         |
|                                            | 氣候風險                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 風險描述                | 營運影響             | 財務影響                   |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
| 減排措施提升生產效率                                 | 汰換高耗能設備                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 提升能資源使用效率           | ●節省營運成本          |                        |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                     |                  |                        |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                     |                  |                        |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                     |                  |                        |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                     |                  |                        |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                     |                  |                        |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                     |                  |                        |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                     |                  |                        |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                     |                  |                        |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                     |                  |                        |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                     |                  |                        |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |
| 3. 敘明極端氣候事件及轉型行動對財務之影響。                    | <p>請參閱本表第 2 項。</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     |                  |                        |      |                          |                     |           |               |           |                    |               |                        |           |                |                  |         |

| 項 目                                                   | 執 行                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4. 敘明氣候風險之辨識、評估及管理流程如何整合於整體風險管理制度。                    | 請參閱本表第 1 項「氣候治理機制與架構」。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5. 若使用情境分析評估面對氣候變遷風險之韌性，應說明所使用之情境、參數、假設、分析因子及主要財務影響。  | 本公司尚未進行氣候風險分析之情境考量。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 6. 若有因應管理氣候相關風險之轉型計畫，說明該計畫內容，及用於辨識及管理實體風險及轉型風險之指標與目標。 | <p><b>營運節能減碳</b></p> <p><b>1.氣候減緩管理策略</b></p> <p>(1)制定氣候減緩管理目標<br/>本公司透過 ISO 14064 每年盤查與揭露溫室氣體排放量，檢視營運面臨的衝擊，並評估範疇一、二的風險及其減緩策略，訂定於2030年(民國119年)，將範疇一及範疇二產生之溫室氣體排放量相較於基準年(民國110年)減少10%；於2040年(民國129年)減少50%，於2050年(民國139年)，達碳中和。</p> <p>(2)主要措施<br/>依本公司碳中和目標及路徑，積極執行溫室氣體減量作為，包括低碳製造、再生能源使用、能源效率提升等措施。</p> <p>(3)民國114年投資於節能或綠色能源相關環保永續之設備金額及項目<br/>①減少溫室氣體排放：計新台幣277.45萬元。<br/>包括(a)購買綠電憑證469張(b)綠電供電量46.9萬度，減碳量約可達222公噸二氧化碳當量。<br/>②節能設備投資：計新台幣111.97 萬元。<br/>主要為冷卻水塔散熱鰭片更換為新型高效率散熱片，可減少電力使用量約54萬度/年，減碳量約可達255.56公噸二氧化碳當量。</p> <p><b>2.氣候調適管理策略</b></p> <p>(1)制定氣候調適管理目標<br/>①回收水使用<br/>秉持水資源永續利用理念，將持續推行節水措施提升用水效率，本公司訂定整體回收系統每年回收水量達40萬噸(立方公尺)以上，為本公司水資源管理目標。<br/>②節能<br/>致力提升能源使用效率，本公司訂定民國110年至民國119年節能措施累積節能率達10%，於2050年(民國139年)，累積節能率達40%。</p> <p>(2)主要措施<br/>①強化公司氣候韌性(如：抗旱)，持續落實製程節水與回收水利用，包括提升回收系統產水率、購買備用水源(找水車)等。<br/>②致力推動電力節能措施，包括照明節能、空調節能與效能提升、生產機台待機節能等。</p> |
| 7. 若使用內部碳定價作為規劃工具，應說明價格制定基礎。                          | 本公司尚未使用內部碳定價作為規劃工具。<br>未來本公司將會考量國際碳市場價格、溫室氣體相關法規的碳價及公司內部減碳成本擬定內部碳價，並依此作為減碳管理與規劃之參考。                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| 項 目                                                                                                         | 執 行              |                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8. 若有設定氣候相關目標，應說明所涵蓋之活動、溫室氣體排放範疇、規劃期程，每年達成進度等資訊；若使用碳抵換或再生能源憑證(RECs)以達成相關目標，應說明所抵換之減碳額度來源及數量或再生能源憑證(RECs)數量。 | 請參閱本表第 6 及第 9 項。 |                                                                                                                                                                                                                                     |
| 9. 溫室氣體盤查及確信情形與減量目標、策略及具體行動計畫。                                                                              | 關鍵因應策略：設定積極減碳目標  |                                                                                                                                                                                                                                     |
|                                                                                                             | 基準年              | 本公司溫室氣體減量基準年為 2021 年(民國 110 年)，基準年之範疇一及範疇二之總排放量為 67,572.1711 公噸 CO2e。                                                                                                                                                               |
|                                                                                                             | 減量目標             | 於 2030 年(民國 119 年)·將範疇一及範疇二產生之溫室氣體排放量相較於基準年(民國 110 年)減少 10%；<br>於 2040 年(民國 129 年)減少 50%；<br>於 2050 年(民國 139 年)，達碳中和。                                                                                                               |
|                                                                                                             | 減量策略             | (1)採用再生能源。<br>(2)廠內之自主減碳管理。                                                                                                                                                                                                         |
|                                                                                                             | 具體行動計畫           | (1)汰換老舊耗能設備。<br>(2)推動各項節能措施。<br>(3)設置太陽光電系統。<br>(4)推動採購再生能源。<br>(5)每年進行溫室氣體盤查，也逐步增加產品碳足跡盤查，以掌握自身溫室氣體排放熱點。<br>(6)民國 113 年啟動子公司溫室氣體盤查與查證。                                                                                             |
|                                                                                                             | 目標達成情形           | 本公司依循 ISO14064 以掌握母公司全廠區溫室氣體排放量·2024 年(民國 113)範疇一與範疇二(市場別)，共排放 57,692.9308 公噸 CO2e，較基準年 2021 年(民國 110 年)減少 9,879.2403 公噸 CO2e(下降 14.6%)。將持續追蹤檢視以達成上述 2030 年(民國 119 年)之減量目標。<br>最近二年度公司溫室氣體盤查及確信情形如後，請參閱表 10.5.2 最近二年度公司溫室氣體盤查及確信情形。 |

## 10.5.2 最近二年度公司溫室氣體盤查及確信情形

### 溫室氣體盤查資訊

| 年度     | 範圍<br>(註 1) | 總排放量(公噸 CO <sub>2</sub> e) |                                 |             | 密集度<br>(公噸 CO <sub>2</sub> e/百萬<br>新台幣) |
|--------|-------------|----------------------------|---------------------------------|-------------|-----------------------------------------|
|        |             | 範疇一(註 2)                   | 範疇二(註 2)                        | 範疇三(註 2)    | 範疇一+二                                   |
| 2025 年 | 母公司-菱生      | 1,587.6330                 | 52,957.5332<br>(location-based) | 13,295.9617 | 11.27                                   |
|        |             |                            | 53,898.9878<br>(market-based)   |             | 11.47                                   |
| 2024 年 | 母公司-菱生      | 1,495.8513                 | 56,271.0235<br>(location-based) | 12,015.4478 | 12.53                                   |
|        |             |                            | 56,197.0795<br>(market-based)   |             | 12.51                                   |

說明：

註 1：資料涵蓋範圍：依上市櫃公司永續發展路徑圖規定，本年度至少應揭露母公司個體盤查及確信資訊。

註 2：範疇一：直接排放量，即直接來自於公司所擁有或控制之排放源。

範疇二：能源間接排放量，即來自於輸入電力、熱或蒸氣而造成間接之溫室氣體排放。

範疇三：其他間接溫室氣體排放量，即由公司活動產生之排放，非屬能源間接排放，而係來自於其他公司所擁有或控制之排放源。

### 溫室氣體確信資訊

| 年度     | 確信範圍   |     | 確信機構 | 確信準則       | 確信意見      |
|--------|--------|-----|------|------------|-----------|
| 2025 年 | 母公司-菱生 | 範疇一 | BSI  | ISO14064-3 | 合理保證等級    |
|        |        | 範疇二 |      |            | 合理保證等級    |
|        |        | 範疇三 |      |            | 有限保證等級    |
| 2024 年 | 母公司-菱生 | 範疇一 | BSI  | ISO14064-3 | 合理保證等級    |
|        |        | 範疇二 |      |            | 合理保證等級    |
|        |        | 範疇三 |      |            | 確證或協議程序等級 |

確信意見書請參閱本公司網站：<https://www.lingsen.com.tw/webc/html/about/about08.aspx>

## 10.5.3 溫室氣體減量目標、策略及具體行動計畫

請參閱 10.5.1 氣候相關資訊執行情形第 9 項。

## 10.6 聯合國永續發展目標(SDGS)執行對照表

| SDGS 目標 | 執行成果                                                                                                                                                                       | 頁碼             |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
|         | <ul style="list-style-type: none"> <li>◆ 聘請專業的護理人員為員工的職場健康把關，包括安排新進員工體格檢查，每年舉辦定期健康檢查、特殊作業健康檢查。</li> <li>◆ 主動由廠內護士進行訪視，包含對日常生活注意事項的提點、工作內容的安排適當與否協調，或安排臨廠服務醫師諮詢等</li> </ul> | 46             |
|         | <ul style="list-style-type: none"> <li>◆ 2025 年底本公司員工總人數為 2,318 人，包括男性 978 人(42%)，女性 1,340 人(58%)。</li> <li>◆ 本公司任用人才秉持性別平等原則，實現兩性平等，員工之福利無性別之區分</li> </ul>                | 42             |
|         | <ul style="list-style-type: none"> <li>◆ 持續提高回收水再利用率，2025 年全廠回收廢水 584,096 噸</li> </ul>                                                                                     | 30             |
|         | <ul style="list-style-type: none"> <li>◆ 菱生公司重視員工健康與權利，落實禁用童工。</li> <li>◆ 透過建教合作、校園徵才等多元徵才管道以及提供具競爭力福利吸引廣大人才加入。</li> <li>◆ 透過政府就業輔導機構聘僱身心障礙員工並持續關注身心障礙者履歷。</li> </ul>      | 50<br>59<br>42 |
|         | <ul style="list-style-type: none"> <li>◆ 本公司遵守國內相關法規，如性別平等法、工作權、禁止歧視、等，且遵循《RBA 責任商業聯盟行為準則》如自由結社、禁用童工、人道待遇等。</li> <li>◆ 支付給勞工的工資符合所有相關的薪酬法令</li> </ul>                      | 50<br>8<br>68  |
|         | <ul style="list-style-type: none"> <li>◆ 貫徹實施環境管理系統，提升環境共存共榮。</li> <li>◆ 菱生公司 2025 年廢棄物約 880.598 噸，依法規定進行廢棄物資源化處理。</li> </ul>                                              | 9<br>25        |
|         | <ul style="list-style-type: none"> <li>◆ 持續進行溫室氣體排放減量計畫，經由製程調整，減少溫室氣體排放，透過節水及節能措施降低氣候環境衝擊。</li> <li>◆ 經由完善管理與全體同仁共同參與降低環境負荷是本公司社會責任。落實安全衛生及環境保護理念，成為永續發展之綠色企業。</li> </ul>  | 9<br>22        |
|         | <ul style="list-style-type: none"> <li>◆ 多元溝通管道，提供員工與公司間的雙向溝通。</li> <li>◆ 勞資會議定期舉行，相互溝通協商解決問題。員工申訴處理制度，協助員工解決個人權益受損問題。</li> </ul>                                          | 50             |

## 10.7 聯合國全球盟約十項原則對照表

| 分類 | 十項原則                       | 說明                                                                   | 頁碼       |
|----|----------------------------|----------------------------------------------------------------------|----------|
| 人權 | 企業應該尊重和維護國際公認的各項人權         | 菱生公司人權政策，遵循《聯合國全球盟約十項原則》，並落實《RBA 責任商業聯盟行為準則》，有尊嚴的對待及尊重現職同仁、契約及臨時人員等。 | 8<br>42  |
|    | 絕不參與任何漠視與踐踏人權的行為           | 本公司主張《RBA 責任商業聯盟行為準則》道德規範-落實責任供應鏈管理及採購非衝突原物料。                        | 8<br>54  |
| 勞工 | 企業應該維護結社自由，承認勞資集體談判的權利     | 菱生公司尊重員工擁有自由結社之權利，定期召開勞資協調會議請參考本報告「5.5 勞資關係」。                        | 50       |
|    | 徹底消除各種形式的強制性勞動             | 「禁止強迫勞動」為菱生公司「薪資福利之無強迫勞動」執行方針。                                       | 39       |
|    | 切實廢除童工                     | 「禁用童工」為菱生公司「勞資關係之尊重人權」執行方針。                                          | 50       |
|    | 杜絕任何在用工與行業方面的歧視行為          | 「杜絕不法歧視以確保工作機會均等」為菱生公司「平等僱用-人才招聘」之準則。                                | 42       |
| 環境 | 企業應對環境挑戰未雨綢繆               | 「持續推動綠色廠房、綠色製造與綠色供應鏈，管控環保風險」為菱生公司環境保護策略。                             | 15<br>22 |
|    | 主動增加對環保所承擔的責任              | 與供應商、客戶共同降低環境衝擊。                                                     | 54       |
|    | 鼓勵無害環境技術的發展與推廣             | 持續提升能資源耗用、廢棄物管理與污染防治績效，與供應商和客戶共同建立半導體綠色供應鏈。                          | 25<br>54 |
| 反貪 | 企業應反對各種形式的貪污，包括敲詐、勒索和行賄受賄。 | 「誠信經營」為本公司之準則，禁止員工任何形式貪污、賄賂之不法行為。                                    | 71       |



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