營造現場的ESG實踐與挑戰

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$(1+4)^2 \cdot (1+4) \cdot (7^2-4)^2$

AGENDA

1. ESG
2. 公共工程節能減碳精進作為
3. 永續報告書國內現況

AGENDA

4 建材營造永續報告書研析

5 專任工程人員

6 GRI 305 排放

7 確信的重要性

8 Q&A

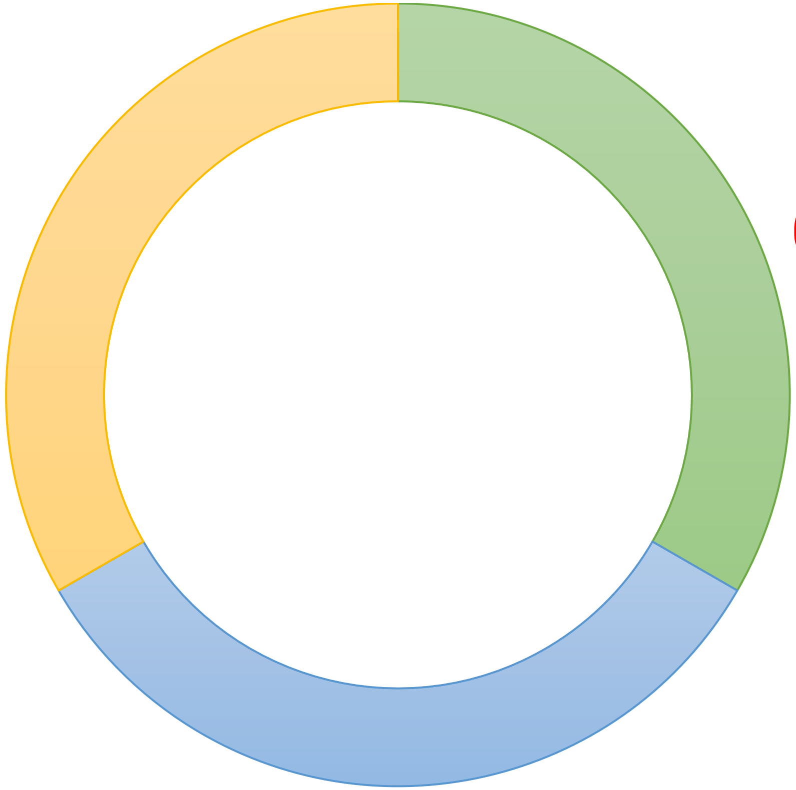
ESG

弄假直至成真

ESG

環境保護
Environmental

公司治理
Governance



社會責任
Social

ESG是什麼?

- 2004年：聯合國全球契約組織（UN Global Compact）與瑞士政府及主要金融機構合作，發表《Who Cares Wins》報告，首次正式提出ESG概念，強調環境、社會及公司治理對企業長期價值的重要性。
- 2006年：聯合國推出責任投資原則（PRI, Principles for Responsible Investment），進一步推動ESG投資。
- 2015年：聯合國永續發展目標（SDGs）發布，與ESG概念相輔相成，企業開始將ESG目標納入營運策略。
- 2020年後：ESG成為全球投資標準，許多國際金融機構和企業開始將ESG納入評估和決策標準，影響資本市場發展。

ESG是什麼？

Astray square

E

- 11 SUSTAINABLE CITIES AND COMMUNITIES
- 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
- 13 CLIMATE ACTION
- 14 LIFE BELOW WATER
- 15 LIFE ON LAND

S

- 1 NO POVERTY
- 2 ZERO HUNGER
- 3 GOOD HEALTH AND WELL-BEING
- 4 QUALITY EDUCATION
- 5 GENDER EQUALITY
- 6 CLEAN WATER AND SANITATION

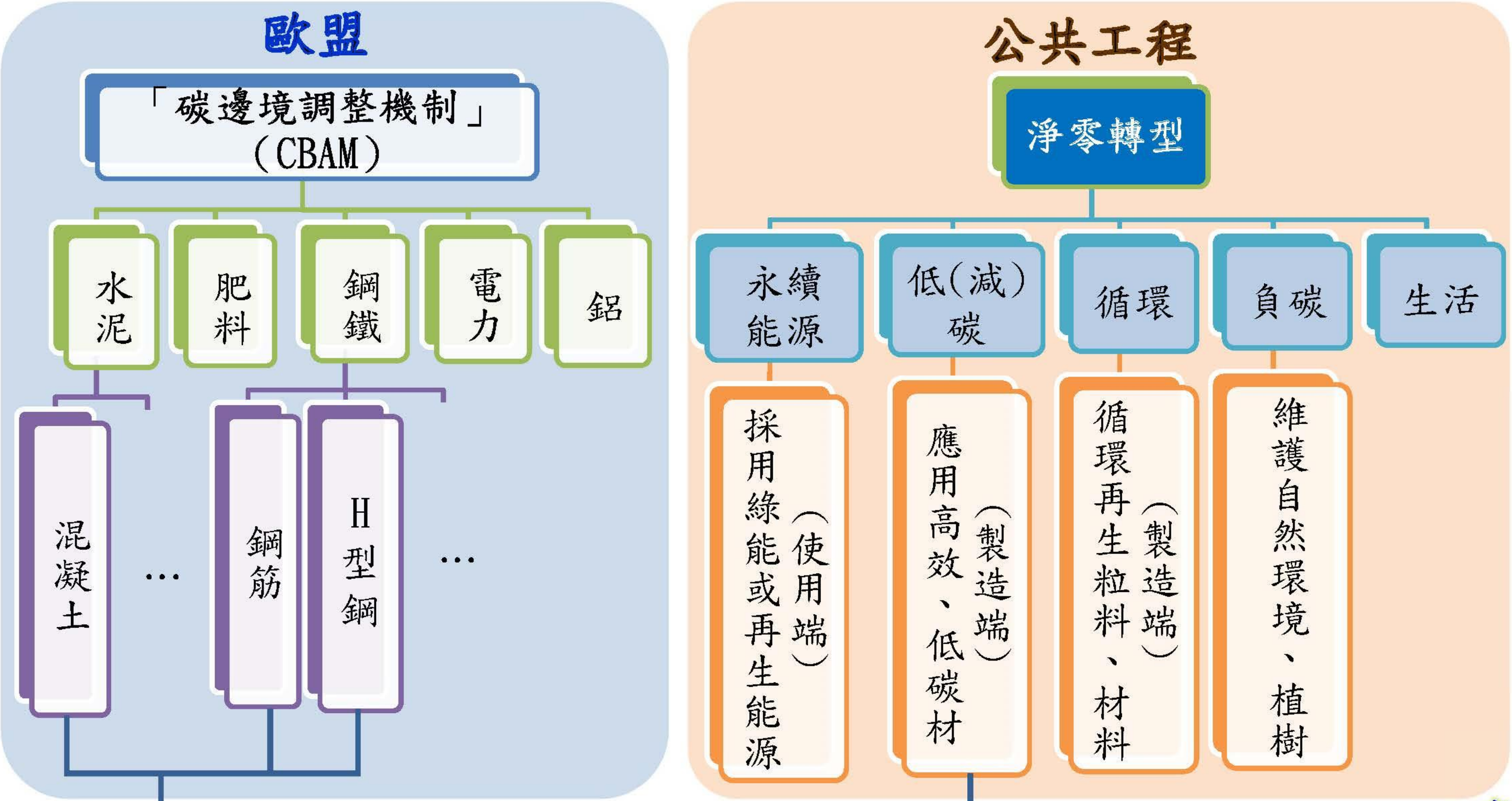
G

- 7 AFFORDABLE AND CLEAN ENERGY
- 8 DECENT WORK AND ECONOMIC GROWTH
- 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
- 10 REDUCED INEQUALITIES

- 16 PEACE, JUSTICE AND STRONG INSTITUTIONS
- 17 PARTNERSHIPS FOR THE GOALS

公共工程節能減碳精進作為

三、公共工程節能減碳精進作為(1/10)



工程減碳策略

配合歐盟機制優先推動營建材料(如鋼材、水泥等)減碳作為，重點宣告排碳量較高者，鼓勵生產低碳材

自願性宣告廠商

三、公共工程節能減碳精進作為(2/10)

國際接軌 共同達成2050淨零排放目標

第一階段

工程工率分析
建立係數資料庫

鼓勵廠商自主性宣告產品碳排量，建立工程資材碳排放係數大數據

第二階段

公共工程全生命週期

- 整體計畫
- 規劃設計
- 工程招標
- 工程施工
- 維護管理

減碳作為與國際接軌(政府)
×
落實節能減碳檢核機制(工程會)

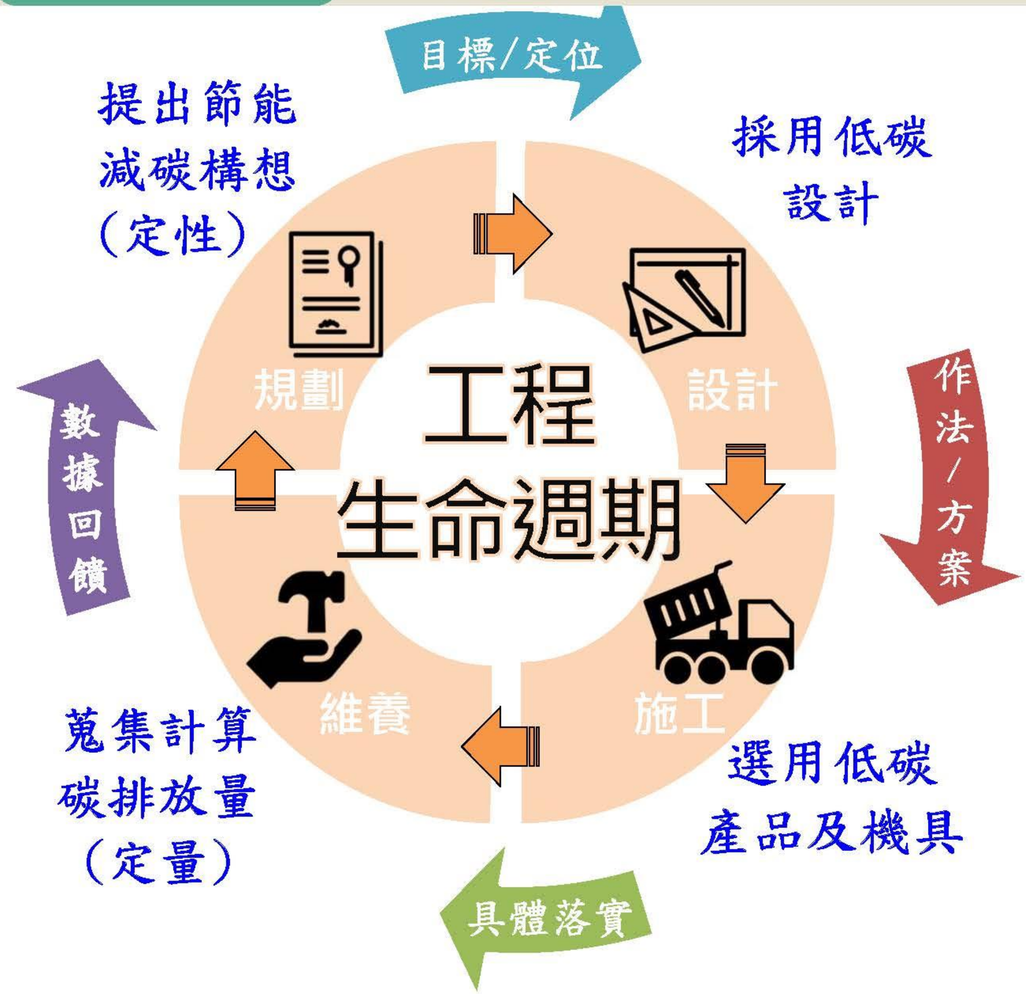
目標

2050年
淨零排放

2030年 2050

三、公共工程節能減碳精進作為(3/10)

第一階段 輔導廠商建立產品碳排量數據



輔導廠商建立產品碳排量數據
(優先推動鋼鐵及水泥類產品)

2023 建置機制

2024 輔導階段：自願性宣告產品碳排量

2027 落實階段：取得碳標籤或ISO14067認證

三、公共工程節能減碳精進作為(4/10)

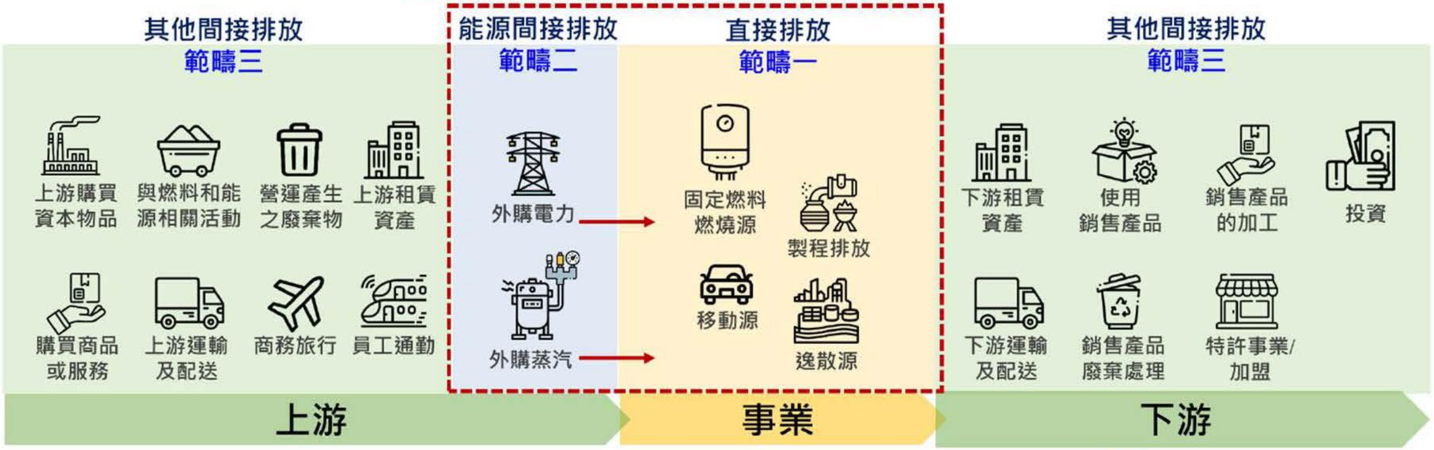
碳足跡排放係數

- **準確度**
  - ✓ 自廠發展係數＞同業使用係數＞設備提供之係數＞區域公告係數＞**國家公告**係數＞國際公告係數
- **可靠度**
  - ✓ 國家政府機關公告＞專案報告＞研究論文

三、公共工程節能減碳精進作為(5/10)

鼓勵各界自願性提供產品碳係數

- 據國際能源署(IEA)統計，水泥及鋼鐵每年生產之二氧化碳約23及26億噸，佔全球溫室排放量的6.5-7%
  - ✓ 每噸鋼碳排放：約1.851噸(世界鋼鐵協會於2022年永續發展憲章數據)
  - ✓ 每噸水泥及水泥熟料碳排：約0.8至0.9噸(台泥及亞泥數據)
- 優先推動鋼材、水泥及混凝土等產品碳足跡宣告
  - ✓ 宣告範疇：以範疇1和範疇2為主



三、公共工程節能減碳精進作為(6/10)

第二階段 落實產品取得碳足跡標籤

- **落實產品取得碳足跡標籤**
  - ✓「行政院環境保護署推動產品碳足跡管理要點」
    <u>透過第三方查驗機構查證取得碳標籤</u>
    使產品各階段的碳排放來源透明化，促使企業調整其產品碳排放量較大的製程，達到減低產品碳排放量的最大效益

三、公共工程節能減碳精進作為(7/10)

第二階段 鼓勵低碳轉型廠商，滾動檢討檢核機制

- **透過政府採購鼓勵低碳轉型之廠商**
  - ✓促使工程採購正確地使用產品，以達到減低公共工程碳排放量的最大效益
- **滾動檢討公共工程節能減碳檢核機制**
  - ✓持續追蹤各工程主辦機關辦理情形，落實工程生命週期各階段節能減碳策略，並滾動檢討檢核機制

三、公共工程節能減碳精進作為(8/10)

推動公共工程大宗資材碳排量計算

- **提供計算平台**

  將利用PCCES計算碳排量，初期僅統計大宗資材項目

  ✓ 鋼筋：施工綱要編碼前五碼03210

  ✓ 鋼材：施工綱要編碼前五碼05125、05120、05060及05124

  ✓ 混凝土：施工綱要編碼前五碼03050

- **分階段計算**

  ✓ 規劃設計階段-由預算書初估大宗資材使用量

  ✓ 完工階段-由結算書使用量及使用廠牌計算實際碳排量

三、公共工程節能減碳精進作為(9/10)

● **碳係數**

✓ 引用環境部碳足跡平台資料庫數據
碳係數累計數量計30類、共1,068項

碳係數名稱	生產區域名稱	數值	宣告單位	公告年份	加入我的最愛
鋼筋混凝土用鋼筋(SD280W)	臺灣	8.35E-1 kgCO₂e	公斤(kg)	2020	加入
鋼筋混凝土用鋼筋(SD420W)	臺灣	8.34E-1 kgCO₂e	公斤(kg)	2020	加入
熱軋竹節鋼筋(不分型號)	臺灣	9.19E-1 kgCO₂e	公斤(kg)	2017	加入
熱軋竹節鋼筋(SD280W)	台灣	8.74E-1 kgCO₂e	公斤(kg)	2017	加入
熱軋竹節鋼筋(SD420W)	台灣	9.01E-1 kgCO₂e	公斤(kg)	2017	加入

三、公共工程節能減碳精進作為(10/10)

● 碳係數

✓ 機關自行提供

□ 水利署「水利工程減碳作業參考指引」建立常用工作項目碳係數參考表

經濟部水利署-工作項目碳排係數參考表					
工項	項次	工作項目	碳排係數(kgC02e)	單位	編碼(備註)
工地拆除	1	機械拆除，無筋混凝土，未含運費	13.641	M3	0222010423
	2	清除及掘除	1.325	M3	0223100003
擋土設施	3	臨時擋土樁設施，打拔(不分類)	0.483	M	0225500031(單位m為打拔深度)
	4	臨時擋土樁設施，鋼軌樁，打拔	0.483	M	0225530031(單位m為打拔深度)
	5	臨時擋土樁設施，鋼板樁，L=13m，打拔	14.500	M	0225540D31(鋼板樁W=40cm，單位m為前進m)
	6	臨時擋土樁設施，鋼板樁，L=13m，打拔	5.800	片	0225540D3C
	7	臨時擋土樁設施，鋼板樁，L=13m，打拔	5.800	支	0225540D3D
	8	臨時擋土支撐工法，H型鋼橫擋及支撐，裝拆	39.637	M2	02256200B2
土方工作	9	土方工作(不分類)	1.672	M3	0230000003
	10	土方工作，挖方	0.981	M3	02300C0003
	11	土方工作，填方	1.339	M3	02300D0003
	12	土方工作，挖填方	0.981	M3	02300E0003
	13	土方工作，回填方	0.736	M3	02300F0003
	14	土方工作，近運填方	1.201	M3	02300G0003
	15	土方工作，遠運填方	4.791	M3	02300H0003
	16	土方工作，遠運利用	3.908	M3	02300N0003
開挖回填	17	構造物開挖，機械挖	1.325	M3	0231600703
	18	構造物回填(不分類)	10.230	M3	0231700003
	19	選擇材料回填(不分類)	10.230	M3	0231900003
	20	選擇材料回填，透水材料，砂	8.213	M3	0231911003
	21	選擇材料回填，透水材料，礫石	10.961	M3	0231912003
	22	選擇材料回填，透水材料，碎石	13.241	M3	0231913003
	23	選擇材料回填，透水材料，塊石	14.106	M3	0231919003
	24	選擇材料回填，級配粒料，碎石級配	7.428	M3	0231921003
	25	選擇材料回填，級配粒料，天然級配	7.428	M3	0231922003
棄土	26	棄土，餘方近運利用	1.042	M3	0232310003
浚挖	27	浚挖(不分類)	0.981	M3	0232500003
地工織物	28	太空包填充及吊放	14.876	個	0234223007
	29	地工織物，織布，合成纖維	2.479	M2	0234221002
	30	生態護坡，客土袋(40*60)	1.190	個	0237170007
蛇籠	31	蛇籠，橢圓60cm*100cm，甲種	26.176	M	0237320101
	32	石籠(不分類)	45.920	M	0237400001
	33	石籠(不分類)	45.920	M3	0237400003
	34	石籠(不分類)	45.920	組	0237400008
	35	土石籠(不分類)	64.768	M	0237400001

□ 內政部建築研究所「低碳(低蘊含碳)建築評估手冊」建立初級資材碳足跡資料庫

分類	材料/工項名稱	單位 I	碳排（$kgCO_2$）				
			原料開採	原料運輸	產品生產	成品運輸	總碳排量
金屬	鋼胚（高爐）	kg	2.26			0.011	2.27
	鋼胚（電弧爐）	kg	0.147	0.081	0.4	0.011	0.64
	鋼筋及鐵件	kg	0.964		0.168	0.017	1.15
	型鋼	kg	0.964		0.185	0.013	1.16
	不鏽鋼捲、不鏽鋼	kg	1.13	0.183	0.88	0.009	2.2
	不鏽鋼管	kg	1.13	0.183	0.915	0.026	2.25
	鍍鋅鋼管	kg	0.964		0.285	0.026	1.28
	冷軋鋼管	kg	0.964		0.435	0.026	1.43
	進口鋁錠（全新）	kg	12.2	0.33		0.010	12.54
	進口鋁錠（80%回收）	kg	3.75	0.187		0.010	3.95
	門窗鋁料	kg	3.75	0.187	0.366	0.0055	4.31
	門窗鋁框	kg	3.3			0.0055	3.3
	門窗鋁框	㎡	14.4			0.0055	14.4
砂石	基地內土方	m^3	7.95				7.95
	基地外運出入土方	m^3	85.29				85.29
	砂礫	m^3	3.05	11.24			14.29
	採石（原石）	m^3	3.83	22.24			26.07
	石材加工品（6分板）	㎡	0.082	0.47	1.74	1.02	3.31
	石質地磚	kg	4.5				4.5
	2.5cm 磨石子地磚	㎡	20.83				20.83
	岩棉板（1.5cm）	㎡	0.015	0.19	0.828	0.364	1.4
	岩棉板	kg	0.47				0.47
	3mm 可樂瓦	㎡	1.45			0.00019	1.45
	磁磚（1cm）	㎡	7.7		7.16	0.228	15.09
	衛生陶瓷器	kg	0.05	0.006	0.8	0.012	0.87
	紅磚（20*9.5*5cm）	塊	0.01	0	0.41	0.032	0.45
	空心磚（L39W19H19cm）	塊	0.195				0.2
	馬賽克 2*2*0.4cm	㎡	6.036				6.04
	馬賽克 2*2*0.8cm	㎡	12.072				12.07
	水晶玻璃馬賽克 2*2*0.8cm	㎡	24.9				24.9
	矽藻土	kg	1.02			0.0042	1.02
	文化瓦	㎡	0.114	0	6.46	0.51	7.08

永續報告書國內現況

上市公司

行業別	總報告書數	完成確信	查驗數
化學工業	28	28	4
水泥工業	7	2	1
半導體業	65	6	1
生技醫療業	23	7	0
光電業	39	7	1
汽車工業	7	7	0
其他電子業	24	3	0
居家生活	2	2	0
油電燃氣業	1	1	0
金融保險業	34	34	14
建材營造	48	10	8
玻璃陶瓷	4	1	1
食品工業	23	22	0
紡織纖維	24	3	8
航運業	23	2	10
造紙工業	6	0	5
通信網路業	30	5	1
貿易百貨	11	3	1
資訊服務業	8	0	4
塑膠工業	17	6	8
運動休閒	11	3	5
電子通路業	13	3	6
電子零組件業	61	8	33
電腦及周邊設備業	47	4	32
電器電纜	8	2	1
電機機械	29	2	14
綠能環保	10	4	3
數位雲端	4	1	1
橡膠工業	10	4	2
鋼鐵工業	26	6	9
觀光餐旅	13	9	0
其他	27	9	10
總計	683	204	183

上櫃公司

行業別	總報告書數	完成確信	查驗數
化學工業	13	13	0
文化創意業	10	3	1
半導體業	38	4	15
生技醫療業	43	8	11
光電業	17	0	3
其他電子業	18	2	5
居家生活	7	4	0
油電燃氣業	4	1	0
金融業	8	8	3
建材營造	8	0	2
食品工業	5	5	0
紡織纖維	4	1	0
航運業	1	0	0
通信網路業	16	2	6
塑膠工業	2	0	0
資訊服務業	10	2	5
運動休閒	2	0	0
電子通路業	2	0	0
電子零組件業	44	6	8
電腦及周邊設備業	24	0	8
電機機械	9	0	3
綠能環保	4	2	1
數位雲端	5	3	0
鋼鐵工業	9	4	2
觀光餐旅	13	11	2
其他	11	2	3
總計	327	81	78

公發

行業別	總報告書數	完成確信	查驗數
證券	12	12	3
食品工業	1	0	1
塑膠工業	1	1	1
化學生技醫療	3	2	1
金融保險業	10	8	5
其他	2	2	0
總計	29	25	11

興櫃

行業別	總報告書數	完成確信	查驗數
鋼鐵工業	2	0	1
運動休閒	1	0	0
半導體業	1	0	0
建材營造	1	0	0
電機機械	1	0	1
金融業	2	1	0
其他電子業	1	0	0
觀光餐旅	1	0	0
其他	1	0	1
總計	11	1	3

建材營造永續報告書研析

無限多次的二分法造就這多元的世界

GRI 2

General disclosures 一般揭露		大華	日勝生	鼎固	太子	三發地產	國泰建	遠雄	潤弘	潤隆	興富發	亞翔
GRI 2: General Disclosures 2021 GRI 2: 一般揭露 2021	2-1 Organizational details	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-2 Entities included in the organization's	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-3 Reporting period, frequency and contact point	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-4 Restatements of information	✓	✓		✓	✓	✓	✓		✓	✓	
	2-5 External assurance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-6 Activities, value chain and other business	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-7 Employees	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-8 Workers who are not employees	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-9 Governance structure and composition	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-10 Nomination and selection of the highest	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-11 Chair of the highest governance body	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-12 Role of the highest governance body in	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-13 Delegation of responsibility for managing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-14 Role of the highest governance body in	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-15 Conflicts of interest	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-16 Communication of critical concerns	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-17 Collective knowledge of the highest	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-18 Evaluation of the performance of the highest	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-19 Remuneration policies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-20 Process to determine remuneration	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-21 Annual total compensation ratio		✓	✓		✓	✓	✓	✓	✓	✓	✓
	2-22 Statement on sustainable development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-23 Policy commitments	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-24 Embedding policy commitments	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-25 Processes to remediate negative impacts	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-26 Mechanisms for seeking advice and raising	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-27 Compliance with laws and regulations	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-28 Membership associations	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
	2-29 Approach to stakeholder engagement	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-30 Collective bargaining agreements					✓		✓	✓		✓	

GRI 2

General disclosures 一般揭露		太設	永信建	全坤建	名軒	夆典	宏盛	宏普	宏璟	亞昕	京城	昇陽	欣陸	長虹	三豐
GRI 2: General Disclosures 2021 GRI 2: 一般揭露 2021	2-1 Organizational details	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-2 Entities included in the organization’s	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-3 Reporting period, frequency and contact point	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-4 Restatements of information	√	√	√	√	√	√	√		√	√	√		√	√
	2-5 External assurance	√	√	√	√	√		√		√	√			√	√
	2-6 Activities, value chain and other business	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-7 Employees	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-8 Workers who are not employees	√	√	√	√	√	√	√	√	√	√	√	√	√	
	2-9 Governance structure and composition	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-10 Nomination and selection of the highest	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-11 Chair of the highest governance body	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-12 Role of the highest governance body in	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-13 Delegation of responsibility for managing	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-14 Role of the highest governance body in	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-15 Conflicts of interest	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-16 Communication of critical concerns	√	√	√	√	√	√	√	√	√	√	√		√	√
	2-17 Collective knowledge of the highest	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-18 Evaluation of the performance of the highest	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-19 Remuneration policies	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-20 Process to determine remuneration	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-21 Annual total compensation ratio	√	√			√					√	√		√	√
	2-22 Statement on sustainable development	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-23 Policy commitments	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-24 Embedding policy commitments	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-25 Processes to remediate negative impacts	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-26 Mechanisms for seeking advice and raising	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-27 Compliance with laws and regulations	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-28 Membership associations	√	√	√	√	√	√	√		√	√	√	√	√	√
	2-29 Approach to stakeholder engagement	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	2-30 Collective bargaining agreements		√			√	√	√					√	√	√

GRI 2

General disclosures 一般揭露		上曜	皇昌	力麒	皇翔	皇鼎	工信	國揚	基泰	富華新	華固	華建	鄉林	隆大	順天
GRI 2: General Disclosures 2021 GRI 2: 一般揭露 2021	2-1 Organizational details	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-2 Entities included in the organization's	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-3 Reporting period, frequency and contact point	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-4 Restatements of information	✓	✓	✓	✓		✓		✓		✓			✓	
	2-5 External assurance	✓		✓	✓		✓		✓		✓	✓		✓	
	2-6 Activities, value chain and other business	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-7 Employees	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-8 Workers who are not employees	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-9 Governance structure and composition	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-10 Nomination and selection of the highest	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-11 Chair of the highest governance body	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-12 Role of the highest governance body in	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-13 Delegation of responsibility for managing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-14 Role of the highest governance body in	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-15 Conflicts of interest	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-16 Communication of critical concerns	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-17 Collective knowledge of the highest	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-18 Evaluation of the performance of the highest	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-19 Remuneration policies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-20 Process to determine remuneration	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-21 Annual total compensation ratio	✓	✓			✓	✓	✓	✓	✓			✓	✓	✓
	2-22 Statement on sustainable development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-23 Policy commitments	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-24 Embedding policy commitments	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-25 Processes to remediate negative impacts	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-26 Mechanisms for seeking advice and raising	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-27 Compliance with laws and regulations	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-28 Membership associations	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-29 Approach to stakeholder engagement	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-30 Collective bargaining agreements	✓					✓		✓					✓	

GRI 2

General disclosures 一般揭露		愛山林	新建	新美齊	三洋實業	雋揚	聯上	聯上發	櫻花建	士開	中工	國產	根基	冠德	建國
GRI 2: General Disclosures 2021 GRI 2: 一般揭露 2021	2-1 Organizational details	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-2 Entities included in the organization's	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-3 Reporting period, frequency and contact point	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-4 Restatements of information	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
	2-5 External assurance	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-6 Activities, value chain and other business	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-7 Employees	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-8 Workers who are not employees	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-9 Governance structure and composition	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-10 Nomination and selection of the highest	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-11 Chair of the highest governance body	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-12 Role of the highest governance body in	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-13 Delegation of responsibility for managing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-14 Role of the highest governance body in	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-15 Conflicts of interest	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-16 Communication of critical concerns	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-17 Collective knowledge of the highest	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-18 Evaluation of the performance of the highest	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-19 Remuneration policies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-20 Process to determine remuneration	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-21 Annual total compensation ratio	✓		✓	✓		✓	✓		✓	✓	✓	✓	✓	✓
	2-22 Statement on sustainable development	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-23 Policy commitments	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-24 Embedding policy commitments	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-25 Processes to remediate negative impacts	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-26 Mechanisms for seeking advice and raising	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-27 Compliance with laws and regulations	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-28 Membership associations	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-29 Approach to stakeholder engagement	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	2-30 Collective bargaining agreements	✓			✓		✓	✓	✓		✓	✓			

GRI 2

General disclosures 一般揭露		皇普	達欣工	達麗	德昌	久舜	森寶
GRI 2: General Disclosures 2021 GRI 2: 一般揭露 2021	2-1 Organizational details	√	√	√	√	無GRI index表	無GRI index表
	2-2 Entities included in the organization’s	√	√	√	√		
	2-3 Reporting period, frequency and contact point	√	√	√	√		
	2-4 Restatements of information	√		√	√		
	2-5 External assurance	√		√	√		
	2-6 Activities, value chain and other business	√	√	√	√		
	2-7 Employees	√	√	√	√		
	2-8 Workers who are not employees	√	√	√	√		
	2-9 Governance structure and composition	√	√	√	√		
	2-10 Nomination and selection of the highest	√	√	√	√		
	2-11 Chair of the highest governance body	√	√	√	√		
	2-12 Role of the highest governance body in	√	√	√	√		
	2-13 Delegation of responsibility for managing	√	√	√	√		
	2-14 Role of the highest governance body in	√	√	√	√		
	2-15 Conflicts of interest	√	√	√	√		
	2-16 Communication of critical concerns	√	√	√	√		
	2-17 Collective knowledge of the highest	√	√	√	√		
	2-18 Evaluation of the performance of the highest	√	√	√	√		
	2-19 Remuneration policies	√	√	√	√		
	2-20 Process to determine remuneration	√	√	√	√		
	2-21 Annual total compensation ratio		√				
	2-22 Statement on sustainable development	√	√	√	√		
	2-23 Policy commitments	√	√	√	√		
	2-24 Embedding policy commitments	√	√	√	√		
	2-25 Processes to remediate negative impacts	√	√	√	√		
	2-26 Mechanisms for seeking advice and raising	√	√	√	√		
	2-27 Compliance with laws and regulations	√	√	√	√		
	2-28 Membership associations	√	√	√	√		
	2-29 Approach to stakeholder engagement	√	√	√	√		
	2-30 Collective bargaining agreements	√		√	√		

GRI 3 & GRI 200（Only確信）

General disclosures 一般揭露		大華	日勝生	鼎固	太子	三發地產	國泰建	遠雄	潤弘	潤隆	興富發	亞翔
Material topics 主題分類												
GRI 3:	3-1 Process to determine material topics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	3-2 List of material topics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Economic performance *[The material topics and the*												
GRI 201: Eco nomi	201-1 Direct economic value generated and	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	201-2 Financial implications and other risks and		✓		✓	✓	✓	✓		✓	✓	✓
	201-3 Defined benefit plan obligations and other	✓	✓		✓	✓	✓	✓				✓
	201-4 Financial assistance received from	✓	✓			✓		✓		✓	✓	✓
Market presence *[The material topics and the*												
GRI 202:	202-1 Ratios of standard entry level wage by	✓					✓					✓
	202-2 Proportion of senior management hired from	✓					✓					✓
Indirect economic impacts *[The material topics and*												
GRI 203:	203-1 Infrastructure investments and services	✓	✓		✓							✓
	203-2 Significant indirect economic impacts											✓
Procurement practices *[The material topics and the*												
GRI	204-1 Proportion of spending on local suppliers	✓	✓	✓		✓	✓	✓	✓		✓	✓
Anti-corruption *[The material topics and the*												
GRI 205: Anti	205-1 Operations assessed for risks related to	✓					✓		✓	✓	✓	
	205-2 Communication and training about anti-	✓	✓	✓		✓	✓	✓	✓	✓	✓	
	205-3 Confirmed incidents of corruption and	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Anti-competitive behavior *[The material topics and*												
GRI	206-1 Legal actions for anti-competitive behavior,	✓	✓			✓		✓	✓	✓		✓
Tax *[The material topics and the disclosures included*												
GRI 207: Tax 2019	207-1 Approach to tax											✓
	207-2 Tax governance, control, and risk					✓						✓
	207-3 Stakeholder engagement and management											✓
	207-4 Country-by-country reporting											

GRI 300（Only確信）

General disclosures 一般揭露		大華	日勝生	鼎固	太子	三發地產	國泰建	遠雄	潤弘	潤隆	興富發	亞翔
Materials *[The material topics and the disclosures*												
GRI	301-1 Materials used by weight or volume							✓	✓			
301:	301-2 Recycled input materials used							✓	✓			
Mat	301-3 Reclaimed products and their packaging							✓				
Energy *[The material topics and the disclosures*												
GRI	302-1 Energy consumption within the organization		✓	✓	✓	✓	✓		✓	✓	✓	✓
302:	302-2 Energy consumption outside of the											
Ener	302-3 Energy intensity		✓		✓	✓	✓		✓			✓
gy	302-4 Reduction of energy consumption		✓		✓		✓			✓	✓	✓
2016	302-5 Reductions in energy requirements of		✓							✓	✓	✓
Water and effluents *[The material topics and the*												
GRI	303-1 Interactions with water as a shared resource		✓		✓	✓			✓	✓	✓	
303:	303-2 Management of water discharge-related		✓		✓	✓			✓	✓	✓	
Wat	303-3 Water withdrawal		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
er	303-4 Water discharge		✓				✓					
and	303-5 Water consumption		✓									
Emissions *[The material topics and the disclosures*												
GRI	305-1 Direct (Scope 1) GHG emissions		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
305:	305-2 Energy indirect (Scope 2) GHG emissions		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Emis	305-3 Other indirect (Scope 3) GHG emissions		✓		✓		✓	✓	✓			✓
sions	305-4 GHG emissions intensity		✓		✓		✓	✓	✓			✓
2016	305-5 Reduction of GHG emissions		✓		✓			✓	✓			✓
	305-6 Emissions of ozone-depleting substances											✓
GRI	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx),											
Spills *[The material topics and the disclosures included*												
GRI	306-3 Significant spills											
Waste *[The material topics and the disclosures*												
GRI	306-1 Waste generation and significant waste-		✓			✓	✓	✓	✓	✓	✓	✓
306:	306-2 Management of significant waste-related		✓		✓	✓	✓	✓	✓	✓	✓	✓
Was	306-3 Waste generated		✓			✓	✓	✓	✓		✓	✓
te	306-4 Waste diverted from disposal		✓			✓		✓	✓		✓	✓
2020	306-5 Waste directed to disposal		✓			✓		✓	✓		✓	
Supplier environmental assessment *[The material*												
GRI	308-1 New suppliers that were screened using		✓		✓		✓	✓		✓	✓	
308:	308-2 Negative environmental impacts in the		✓		✓			✓	✓	✓	✓	

GRI 400 (1/2) (Only確信)

General disclosures 一般揭露		大華	日勝生	鼎固	太子	三發地產	國泰建	遠雄	潤弘	潤隆	興富發	亞翔
Materials *[The material topics and the disclosures*												
Employment *[The material topics and the disclosures*												
GRI 401: Emp	401-1 New employee hires and employee turnover		✓	✓	✓	✓	✓	✓	✓	✓		✓
	401-2 Benefits provided to full-time employees that		✓	✓	✓	✓	✓	✓	✓	✓		✓
	401-3 Parental leave		✓	✓	✓	✓	✓	✓	✓	✓		✓
Labor/management relations *[The material topics*												
GRI	402-1 Minimum notice periods regarding	✓	✓		✓	✓	✓		✓			✓
Occupational health and safety *[The material topics*												
GRI 403: Occupational Health and Safe	403-1 Occupational health and safety management	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	403-2 Hazard identification, risk assessment, and	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
	403-3 Occupational health services	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	403-4 Worker participation, consultation, and	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
	403-5 Worker training on occupational health and	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	403-6 Promotion of worker health		✓	✓	✓		✓	✓	✓	✓	✓	✓
	403-7 Prevention and mitigation of occupational	✓	✓	✓	✓			✓	✓	✓	✓	✓
	403-8 Workers covered by an occupational health		✓		✓	✓		✓	✓	✓	✓	✓
	403-9 Work-related injuries	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	403-10 Work-related ill health	✓			✓	✓		✓		✓	✓	✓
Training and education *[The material topics and the*												
GRI 404: Trai	404-1 Average hours of training per year per	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
	404-2 Programs for upgrading employee skills and	✓	✓		✓			✓	✓	✓		✓
	404-3 Percentage of employees receiving regular	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Diversity and equal opportunity *[The material topics*												
GRI 405:	405-1 Diversity of governance bodies and	✓	✓	✓	✓	✓	✓	✓	✓			✓
	405-2 Ratio of basic salary and remuneration of	✓	✓	✓		✓		✓				✓
Non-discrimination *[The material topics and the*												
GRI	406-1 Incidents of discrimination and corrective	✓	✓				✓	✓				
Freedom of association and collective bargaining												
GRI	407-1 Operations and suppliers in which the right	✓										
Child labor *[The material topics and the disclosures*												
GRI	408-1 Operations and suppliers at significant risk	✓	✓					✓				
Forced or compulsory labor *[The material topics and*												
GRI	409-1 Operations and suppliers at significant risk	✓	✓					✓				

GRI 400 (2/2) (Only確信)

General disclosures 一般揭露		大華	日勝生	鼎固	太子	三發地產	國泰建	遠雄	潤弘	潤隆	興富發	亞翔
Materials *[The material topics and the disclosures*												
Security practices *[The material topics and the*												
GRI	410-1 Security personnel trained in human rights											
Rights of Indigenous Peoples *[The material topics*												
GRI	411-1 Incidents of violations involving rights of											
Local communities *[The material topics and the*												
GRI	413-1 Operations with local community		√	√	√	√		√	√	√	√	
413:	413-2 Operations with significant actual and		√			√				√	√	
Supplier social assessment *[The material topics and*												
GRI	414-1 New suppliers that were screened using		√	√	√		√	√			√	
414:	414-2 Negative social impacts in the supply chain		√		√			√	√		√	
Public policy *[The material topics and the disclosures*												
GRI	415-1 Political contributions	√				√						
Customer health and safety *[The material topics and*												
GRI	416-1 Assessment of the health and safety impacts	√			√	√		√	√	√		
416:	416-2 Incidents of non-compliance concerning the	√	√			√		√	√	√		
Marketing and labeling *[The material topics and the*												
GRI	417-1 Requirements for product and service	√	√	√	√	√		√	√			
417:	417-2 Incidents of non-compliance concerning	√	√	√		√		√	√			
Mar	417-3 Incidents of non-compliance concerning	√	√			√		√	√			
Customer privacy *[The material topics and the*												
GRI	418-1 Substantiated complaints concerning	√	√	√	√	√		√	√	√	√	√

專任工程人員

脾氣不要比本事還大，所以要持續精進自己的能力

專任工程人員

第 32 條

1. 營造業之工地主任應負責辦理下列工作：

一、依施工計畫書執行按圖施工。

二、按日填報施工日誌。

三、工地之人員、機具及材料等管理。

四、工地勞工安全衛生事項之督導、公共環境與安全之維護及其他工地行政事務。

五、工地遇緊急異常狀況之通報。

六、其他依法令規定應辦理之事項。

2. 營造業承攬之工程，免依第三十條規定置工地主任者，前項工作，應由專任工程人員或指定專人為之。

專任工程人員

營造業法第 35 條

營造業之專任工程人員應負責辦理下列工作：

一、查核施工計畫書，並於認可後簽名或蓋章。

二、於開工、竣工報告文件及工程查報表簽名或蓋章。

三、督察按圖施工、解決施工技術問題。

四、依工地主任之通報，處理工地緊急異常狀況。

五、查驗工程時到場說明，並於工程查驗文件簽名或蓋章。

六、營繕工程必須勘驗部分赴現場履勘，並於申報勘驗文件簽名或蓋章。

七、主管機關勘驗工程時，在場說明，並於相關文件簽名或蓋章。

八、其他依法令規定應辦理之事項。

GRI 305 排放

海水退了才知道誰沒穿褲子，為了真相，必須減緩氣候變遷

確信

公司名稱	年度	scope 1	scope 2	scope 3	總排放量	密集度指標	(單位)
單位	2022	(tCO_2e)	(tCO_2e)	(tCO_2e)	(tCO_2e)		
日勝生		57.78	117.21	x	174.99	1.46	tCO_2e/員工人數
鼎固		1,719.78	32,893.76	x	34,613.54	3.75	tCO_2e/百萬營收
太子		495.64	3,380.82	626.59	4,503.05	0.05	tCO_2e/m2
三發地產		11.60	252.90	x	264.50	無完整資料	
國泰建設		115.17	1,563.85	275.55	1,954.57	0.14	tCO_2e/百萬營收
遠雄		14.5408	183.6735	81.7636	279.978	0.011	tCO_2e/百萬營收
潤弘	無2022年數據						
潤隆		6.00	108.00	x	114.00	無完整資料	
興富發		123.312	268.791	x	392.10	無完整資料	
大華	無資料						

公司名稱	年度	scope 1	scope 2	scope 3	總排放量	密集度指標	(單位)	碳盤查
單位	2023	(tCO_2e)	(tCO_2e)	(tCO_2e)	(tCO_2e)			
日勝生		38.56	138.50	x	177.06	1.53	tCO_2e/員工人數	ISO 14064-1:2018
鼎固		1,526.72	39,055.46	x	40,582.18	3.46	tCO_2e/百萬營收	
太子		477.35	3,335.08	675.14	4,487.57	0.03	tCO_2e/m2	ISO 14064-1:2018
三發地產		19.20	301.20	x	320.40	3.30	tCO_2e/百萬營收	
國泰建設		325.434	1,412.032	282.43	2,019.89	0.30	tCO_2e/百萬營收	ISO 14064-1:2018
遠雄		16.36	198.66	96.08	311.10	0.01	tCO_2e/百萬營收	ISO 14064-1:2018
潤弘		535.00	1,549.00	38,100.00	39,648.00	0.09	tCO_2e/百萬營收	ISO 14064-1:2018
潤隆		6.60	96.28	x	102.88	無完整資料		
興富發		110.46	1,030.66	x	1141.1194	0.0862	tCO_2e/百萬營收	ISO 14064-1:2018
大華								

查驗

公司名稱	年度	scope 1	scope 2	scope 3	總排放量	密集度指標	(單位)
單位	2022	(tCO_2e)	(tCO_2e)	(tCO_2e)	(tCO_2e)		
國產		11,602.26	9,699.04	1,329,830.60	1,351,131.91	79.6	tCO_2e/百萬營收
德昌		34.07	205.13	x	239.20	2.814	tCO_2e/員工人數8
達麗		13.95	920.67	x	934.62	0.109	tCO_2e/百萬營收
根基		618.61	2,704.20	281,385.94	284,708.75	20.042	tCO_2e/百萬營收
		密集度-範疇1+2:1.062(tCO_2e/人數		密集度-範疇3:總部0.956(tCO_2e/人數)+工地19.80tCO_2e/百萬營收			
皇普		5.21	15.80	x	21.01	0.0121	tCO_2e/百萬營收
建國		17	180.3	x	193.3	0.5252	tCO_2e/員工人數3
冠德		30.5349	171.3335	x	201.8684	0.0110	tCO_2e/百萬營收
中工		1,104.10	4,164.01	x	5,268.11	3.90	tCO_2e/員工人數1
士開		7.36	50.42	x	57.77	1.44	tCO_2e/員工人數
達欣工	無資料						

公司名稱	年度	scope 1	scope 2	scope 3	總排放量	密集度指標	(單位)
單位	2023	(tCO_2e)	(tCO_2e)	(tCO_2e)	(tCO_2e)		
國產		10,156.22	9,094.43	1,271,622.36	1,290,873.01	72.2	tCO_2e/百萬營收
德昌		43.60	150.05	x	193.66	2.130	tCO_2e/員工人數9
達麗		15.93	1,230.93	x	1,246.86	0.081	tCO_2e/百萬營收
根基		561.49	2,828.70	210,910.99	214,301.18	14.996	tCO_2e/百萬營收
		密集度-範疇1+2:0.965(tCO_2e/人數		密集度-範疇3:總部0.983(tCO_2e/人數)+工地14.75tCO_2e/百萬營收			
皇普		6.00	15.59	x	21.59	0.0116	tCO_2e/百萬營收
建國		92.53	449.73	21,616.55	22,158.81	60.378	tCO_2e/員工人數3
冠德	無2023年數據						
中工		1,250.78	6,634.05	x	7,884.83	4.47	tCO_2e/員工人數1
士開		5.58	45.88	x	51.46	1.23	tCO_2e/員工人數
達欣工							

GREENHOUSE GAS PROTOCOL

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COMPANIES AND ORGANIZATIONS

COUNTRIES AND CITIES

In 2023, **97%** of disclosing S&P 500 companies reported to CDP using **GHG Protocol**.

2023 年溫室氣體排放數據統計

項目		合計 (CO₂e 公噸)
範疇一：直接排放		N/A
範疇二：能源間接排放		18.202
範疇三：其他間接排放	類別 1：購買商品或服務產生的排放	0.874
	類別 2：上游購買的資本物品產生的排放	N/A
	類別 3：與燃料和能源相關活動的排放（未涵蓋在範疇一或二）	0.060
	類別 4：上游運輸和配送產生的碳排	N/A
	類別 5：營運產生廢棄物的處置與處理的排放	N/A
	類別 6：商務旅行產生的碳排	N/A
	類別 7：員工通勤產生的碳排	2.839
	類別 8：上游租賃資產產生的排放	N/A
	類別 9：下游運輸和配送產生的排放	512.500
	類別 10：銷售產品的加工產生的排放	N/A
	類別 11：使用銷售產品產生的排放	N/A
	類別 12：銷售產品廢棄處置產生的排放	N/A
	類別 13：下游租賃資產產生的排放	N/A
	類別 14：特許經營	N/A
	類別 15：投資產生的排放	N/A
總量		534.475

註：總溫室氣體排放包括以上但不限於，無法完整揭露之原因包括：1.不適用 2.法律禁令 3.保密規定限制 4.資訊無法取得/不完整

2024 年溫室氣體排放數據統計

項目		合計（公噸 CO_{2e}）
範疇一：直接排放		不適用
範疇二：能源間接排放		18.2
範疇三：其他間接排放	類別 1：購買商品或服務產生的排放	1.67
	類別 2：上游購買的資本物品產生的排放	不適用
	類別 3：與燃料和能源相關活動的排放（未涵蓋在範疇一或二）	0.15
	類別 4：上游運輸和配送產生的碳排	資訊無法取得 / 不完整
	類別 5：營運產生廢棄物的處置與處理的排放	資訊無法取得 / 不完整
	類別 6：商務旅行產生的碳排	資訊無法取得 / 不完整
	類別 7：員工通勤產生的碳排	2.8
	類別 8：上游租賃資產產生的排放	不適用
	類別 9：下遊運輸和配送產生的排放	709.51
	類別 10：銷售產品的加工產生的排放	不適用
	類別 11：使用銷售產品產生的排放	不適用
	類別 12：銷售產品廢棄處置產生的排放	不適用
	類別 13：下游租賃資產產生的排放	不適用
	類別 14：特許經營	不適用
	類別 15：投資產生的排放	不適用
總量		732.33

註：總溫室氣體排放包括以上但不限於，無法完整揭露之原因包括：1. 不適用 2. 法律禁令 3. 保密規定限制 4. 資訊無法取得 / 不完整

碳管理目前的極致就是SBTi

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COMPANY	NEAR-TERM STATUS	NET-ZERO STATUS	ORGANIZATION TYPE	
Astray Square Taiwan, Province of China, Asia	TARGETS SET	—	**SME**	View less

SBTi ID: 40016968

Organization type: SME

Sector: Professional Services

Temperature alignment (based on scope 1 and 2 targets): 1.5°C

Target language: This target was approved using a streamlined target validation route exclusive to small and medium-sized enterprises (SMEs).https://docs.sbtiservices.com/resources/FAQsforSMEs.pdf Astray Square commits to maintain zero scope 1 and scope 2 emissions through 2030, and to measure and reduce its scope 3 emissions from a 2023 base year.

DOWNLOAD ALL DATA AS XLS

確信的重要性

眼見不一定為憑，未來一定看得見，重點在是否是可觸摸的未來

上市上櫃公司永續報告書確信機構管理要點

七

本要點規定意見書應分別符合下列規定：

(一)作業辦法第四條永續指標之確信標準，應依財團法人中華民國會計研究發展基金會發布之確信準則3000號「非屬歷史性財務資訊查核或核閱之確信案件」、國際審計與確信準則委員會(International Auditing and Assurance Standards Board, IAASB)發布之ISAE(International Standard on Assurance Engagements)3000辦理。

(二)作業辦法第四條之一溫室氣體之確信標準，應依下列標準之一辦理，但上市上櫃公司之部分營運據點屬環境部公告應盤查登錄溫室氣體排放量之排放源者，則依其規定辦理：

1.財團法人中華民國會計研究發展基金會發布之確信準則3410號「溫室氣體聲明之確信案件」、國際審計與確信準則委員會(International Auditing and Assurance Standards Board, IAASB)所發布之國際確信準則第3410號─溫室氣體聲明之確信案件(International Standardon Assurance Engagements(ISAE)3410, Assurance Engagements on Greenhouse Gas Statements)。

2.國際標準組織(International Organization for Standardization, ISO)發布之ISO14064-3。

確信

岩信聯合會計師

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Dist., Taipei City

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Integritas

會計師有限確信報告

思緻有限公司　公鑒：

思緻有限公司民國（以下同）112 年度永續報告書，業經本會計師

所選定之績效指標執行確信程序竣事，並出具有限確信報告。

確信標的資訊與適用基準

思緻有限公司所選定之績效指標（以下簡稱標的資訊）與適用基準

項目彙總表」。

管理階層之責任

管理階層之責任係依據全球永續性報告協會（Global Reporting Init

布之通用準則、行業準則及思緻有限公司自行設計之基準編製標的資訊

訊編製有關之必要內部控制，以確保標的資訊未存有導因於舞弊或錯誤

會計師之責任

本會計師係依照確信準則 3000 號「非屬歷史性財務資訊查核或核

劃及執行有限確信案件，基於所執行之程序與所獲取之證據，對標的資

實表達取得有限確信，並出具有限確信報告。相較合理確信案件，有限

序之性質及時間不同，其範圍亦較小，故於有限確信案件所取得之確信

理確信案件中取得者。

本會計師係基於專業判斷規劃及執行確信程序，以獲取相關標的

據，且任何內部控制均受有先天限制，因此未必能查出所有業已存在之

會計師執行確信程序包括：

●取得及閱讀永續報告書；

●對參與編製標的資訊之管理階層及相關人員進行查詢，以瞭解標的資

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會計師有限確信報告

思緻有限公司　公鑒：

本會計師受託執行思緻有限公司民國（以下同）112 年度溫室氣體聲明之有限確信案件，該溫室氣體聲明請見思緻有限公司永續報告書第 76～79 頁。

思緻有限公司對溫室氣體聲明之責任

思緻有限公司之責任係依據《溫室氣體盤查議定書企業會計與報告標準》（《溫室氣體盤查議定書企業標準》）及《溫室氣體盤查議定書價值鏈（範疇三）會計與報告標準》（《溫室氣體盤查議定書價值鏈標準》）的要求進行碳盤查。此二標準是溫室氣體盤查議定書的一部分，由世界資源研究院（WRI）和世界企業永續發展協會（WBCSD）共同開發。另外也依據環境部 113 年溫室氣體排放量盤查作業指引，採用營運控制法，進行 112 年的碳盤查，以掌握這一年來溫室氣體的排放情形，作未來減碳規劃之參考。由於此為思緻有限公司第一年進行碳盤查，因此預計未來以 112 年作為基準年，逐步改善碳排放。管理階層之責任係依據全球永續性報告協會（Global Reporting Initiatives，GRI）發布之通用準則、行業準則及思緻有限公司自行設計之基準編製標的資訊，且維持與標的資訊編製有關之必要內部控制，以確保標的資訊未存有導因於舞弊或錯誤之重大不實表達。

會計師之獨立性及品質管制規範

本會計師及所隸屬會計師事務所遵循會計師執業道德規範中有關獨立性及其他道德規範之規定，該規範之基本原則為正直、公正客觀、專業能力及盡專業上應有之注意、保密及專業態度。此外，本會計師所隸屬會計師事務所適用品質管理準則第 1 號「會計師事務所之品質管理」，該品質管理準則規定會計師事務所設計、付諸實行及執行品質管理制度，包含與遵循執業道德規範、專業準則及所適用法令相關之書面政策及程序。

會計師之責任

本會計師係依照確信準則 3410 號「溫室氣體聲明之確信案件」規劃及執行有限確信案件，基於所執行之程序與所獲取之證據，對標的資訊是否存有重大不實表達取得有限確信，並出具有限確信報告。相較合理確信案件，有限確信案件所執行程序之性質及時間不

查證

財團法人台灣建築中心　針對思緻有限公司 2023 年永續報告書之查證意見書

■ **報告組織(負責者)**

中文：思緻有限公司

英文：Astray square

地址：中文：臺北市松山區復興北路 201 號 4 樓之 1

英文：4F.-1, No. 201, Fuxing N. Rd., Songshan Dist., Taipei City, Taiwan (R.O.C.)

報告版本：2024.Dec.23

■ **報告組織和確信機構的雙方職責**

聲明報告組織(負責者)根據準則 GRI:2021 & AA1000AP:2018、TCFD，提出評估報告書及相關數據；聲明確信機構負責查證者根據 AA1000AS v3:2020 執行查證並表達意見。

■ **所使用的確信標準**

本報告依據財團法人台灣建築中心發展之永續報告書保證規則針對以下所述予以保證：

☒ AA1000 保證標準(V3)第一類型中度保證之要求評估報告書內容及其配套管理系統

☒ AA1000 當責性原則(2018)之符合程度 Accountability Principles (AA1000AP, 2018);

☒ AA1000 Stakeholder Engagement (AA1000SES, 2015).

☒ GRI 內容索引中宣告其所依循之重大主題及其對應之 GRI 永續性報導準則系列符合程度

■ **保證/查證性質與範疇**

財團法人台灣建築中心(以下簡稱建築中心)受思緻有限公司(以下簡稱思緻公司)委託執行 2023 年永續報告書之品質保證的獨立查證。

依據建築中心永續報告書保證之方法學，其保證範疇係包括報告書中所涵蓋的文字、數據與圖表。根據建築中心永續報告書保證方法論，保證的範疇包括抽樣內容和相關附表中的數據，這些數據包含在現場查證期間所提交的報告。

建築中心保留不時更新保證意見聲明的權利，具體取決於發布版本的報告內容與協議標準要求之間差異的程度。

建築中心於 2024 年 12 月 23 日至 2025 年 1 月 3 日之期間，進行查證工作。

有關思緻公司 2023 年永續報告書之資訊及所呈現內容皆屬於思緻公司永續報告書責任權責人員、永續委員會及永續管理部門的責任。

建築中心未參與任何有關思緻公司 2023 年永續報告書所包含之內容的準備工作。

我們的責任是對思緻公司所有利害相關者對於所設定查證範疇內所發表的文字、數據、圖表和聲明提供查證意見。

Q & A

官方網站

Astray Square

打造夢想應許之地

奔向永恆自在永續

Line
Official Account

貼文有大量相關簡報可參考
想知道有關永續的資訊亦可提問