

# Climate Change and Carbon Netzero 氣候變遷與碳淨零

Jingyi Jiang

Intertek Greater China Region

24 May 2024

# AGENDA

01

## Climate Change Related Regulations

- The Paris Agreement & Update of COP27
- EU Corporate Sustainability Due Diligence Directive
- EU Green Deal
- EU Directive on single-use plastics
- Waste Framework Directive
- Carbon Border Adjustment Mechanism (CBAM) – Carbon Tax
- Other international regulations update

02

## Carbon Neutral and Net Zero

03

## Carbon Netzero Journey

- Carbon offsets / Carbon credits
- Carbon emission reduction solutions
- Carbon capture & storage
- Science Based Targets initiative (SBTi)
- Carbon Disclosure Project

04

## Q & A



# 議程

01

## 氣候變遷相關法規

- 《巴黎協定》與 COP27 的更新
- 歐盟企業可持續發展盡職調查指令
- 歐盟綠色協議
- 歐盟關於一次性塑膠的指令
- 廢棄物框架指令
- 碳邊境調節機制 (CBAM) - 碳稅
- 其他國際法規更新

02

## 碳中和和淨零

03

## 碳淨零之旅

- 碳抵銷/碳信用額
- 碳減排解決方案
- 碳捕獲與封存
- 科學碳目標倡議(SBTi)
- 碳揭露專案

04

## Q & A

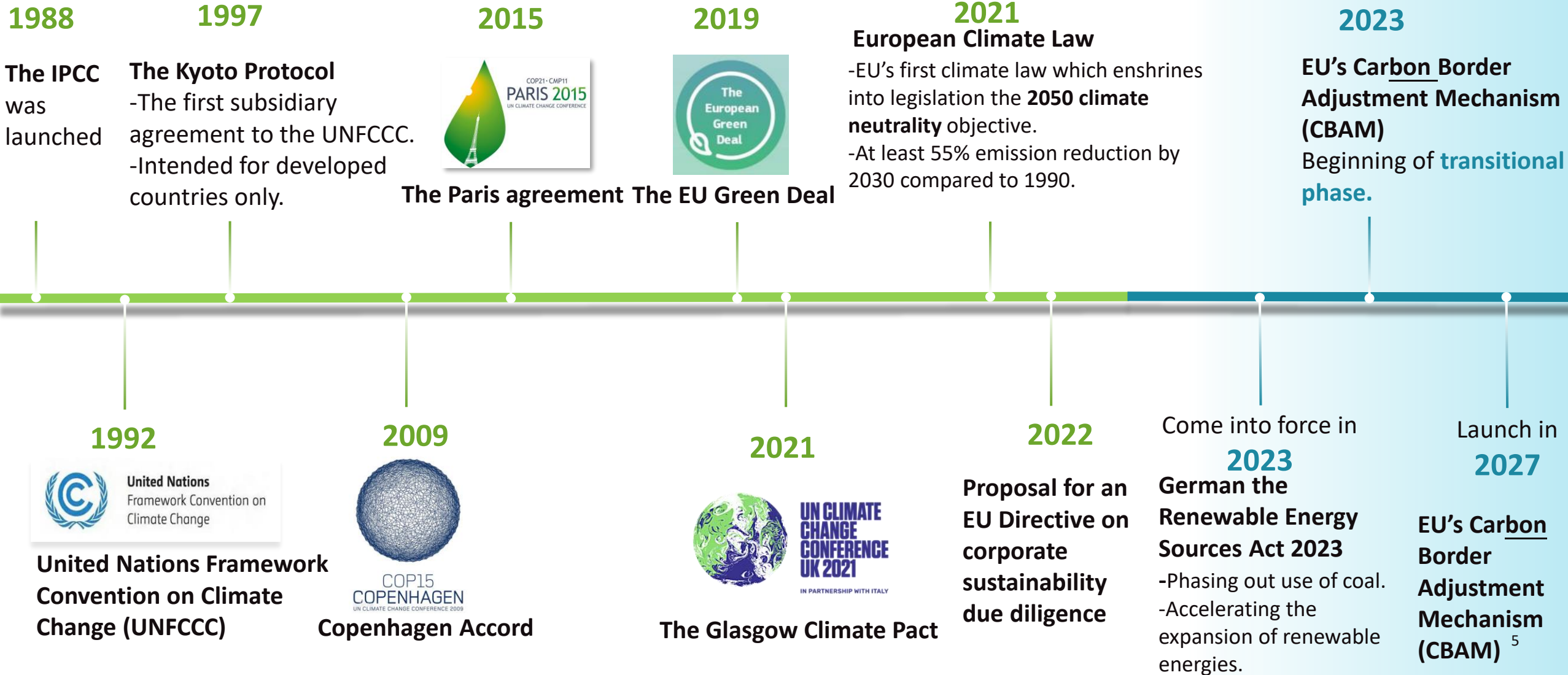


01

CLIMATE CHANGE RELATED  
REGULATIONS  
氣候變遷相關法規

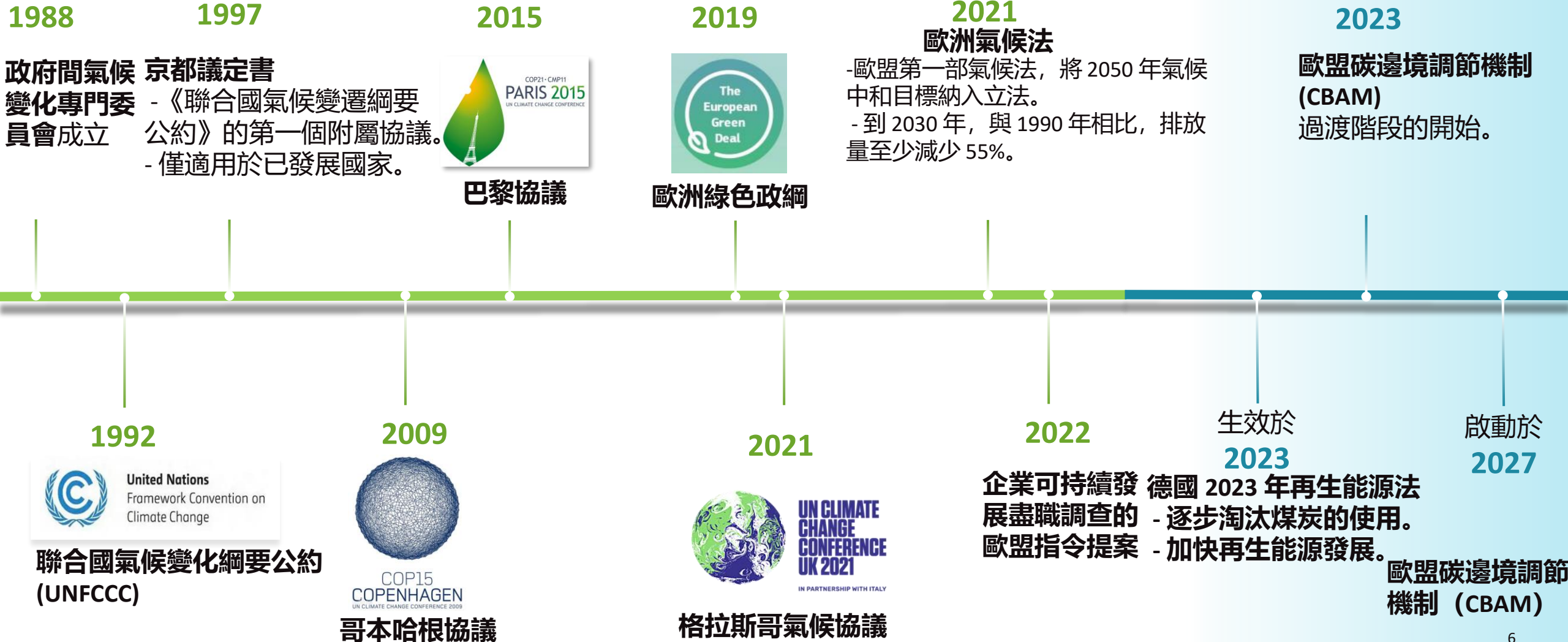


# TIMELINE OF CLIMATE RELATED EVENT OR REGULATIONS





# 氣候相關事件或法規的時間表



# 01 CONTENTS

- **The Paris Agreement & Update of COP27**
- **EU Green Deal**
- **Carbon Border Adjustment Mechanism (CBAM)**
- **Waste Framework Directive**
- **EU Directive on Single-use Plastics**
- **EU Corporate Sustainability Due Diligence Directive**

# 01 內容

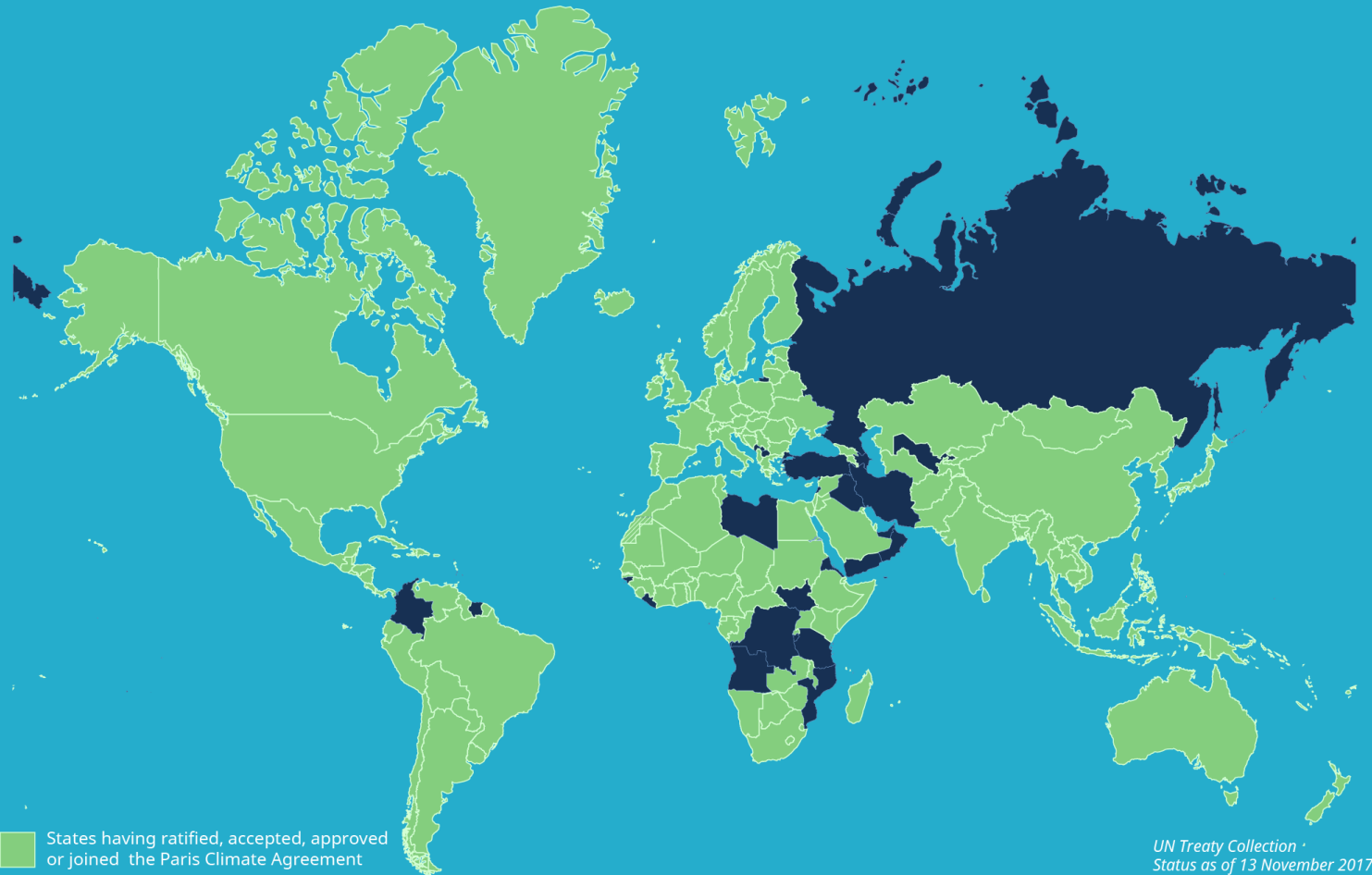
- **《巴黎協定》與 COP27 的更新**
- **歐盟綠色協議**
- **碳邊境調節機制 (CBAM)**
- **廢棄物框架指令**
- **歐盟一次性塑膠指令**
- **歐盟企業可持續發展盡職調查指令**



# THE PARIS AGREEMENT 巴黎協定



## PARIS AGREEMENT: STATUS OF RATIFICATION



The Paris Agreement is the **first-ever universal, legally binding global climate change agreement**, adopted by 196 Parties at the Paris climate conference (**COP21**) in December 2015 and entered into force on 4 November 2016.

《巴黎協定》是第一個具有普遍性、具有法律約束力的全球氣候變遷協定，由196個締約方在2015年12月的巴黎氣候大會（COP21）上通過，並於2016年11月4日生效。

Its **GOAL** is to limit global warming to well below **2**, preferably to **1.5** degrees Celsius, compared to pre-industrial levels

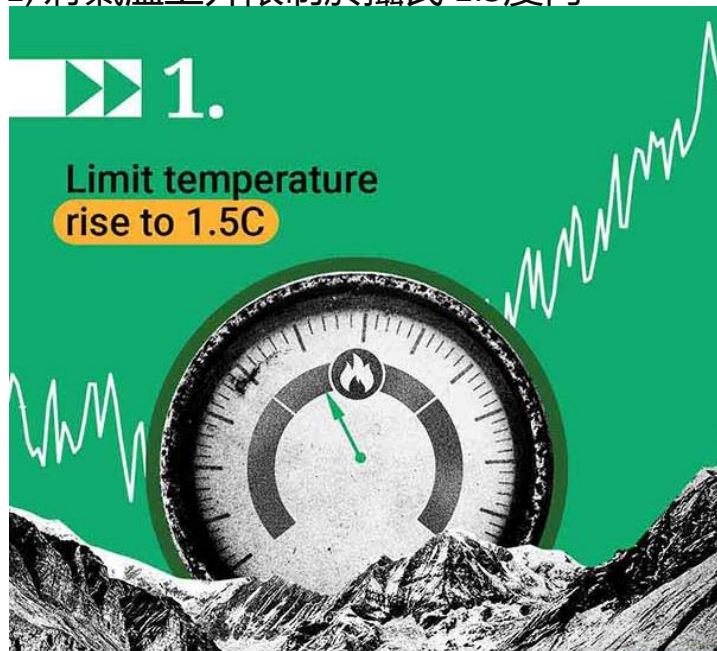
其目標是將全球暖化限制在遠低於工業化前水準攝氏 **2** 度，最好是攝氏 **1.5** 度

# THE PARIS AGREEMENT 巴黎協定



## 3 Key Elements on Climate Change 氣候變遷的3個關鍵要素

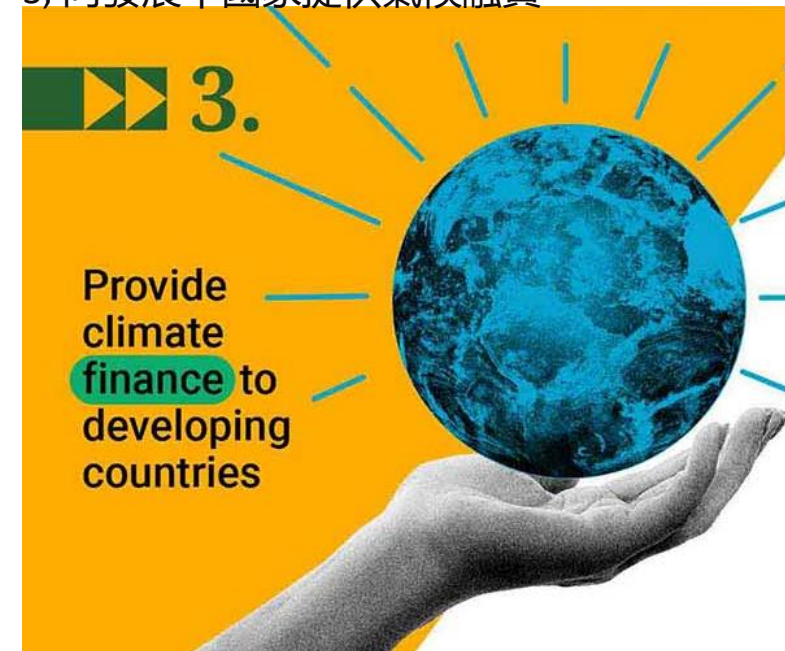
1, 將氣溫上升限制於攝氏 1.5度內



2, 每五年審查各國的減排承諾



3, 向發展中國家提供氣候融資



# THE PARIS AGREEMENT 巴黎協定



The Paris Agreement works on a **5-year cycle** of increasingly ambitious climate action carried out by countries. By 2020, countries submit their plans for climate action known as:

《巴黎協定》以**五年為一個週期**，各國的氣候行動日益雄心勃勃。到 2020 年，各國將提交氣候行動計劃，即：

## Nationally Determined Contribution (NDC) 國家自定貢獻

Where countries communicate actions that they will take to  
各國通報將採取的行動

- Reduce their Greenhouse Gas emissions  
減少溫室氣體排放
- Build resilience to adapt to the impacts of rising temperatures.  
增強抵禦能力，以適應氣溫上升的影響。



# THE 27<sup>TH</sup> UN CLIMATE CHANGE CONFERENCE OF THE PARTIES (COP27) 第27屆聯合國氣候變化大會



Secure global net-zero, climate resilient, and prosperous world by mid-century and keep 1.5 °C within reach

在本世紀中葉確保達到全球淨零排放，氣候韌性，繁榮的世界並保持 1.5°C 於可達到的範圍



Establish a dedicated fund for loss and damage

設立專門基金以因應損失和損壞



## Goals 目標

Hold businesses and institutions to account and mobilize more financial support for developing countries

追究企業和機構的責任並動員更多的資金支持發展中國家



Make the pivot toward implementation  
轉向實施



**COP27**  
SHARM EL-SHEIKH  
EGYPT 2022

Held in Sharm El-Sheikh, the Arab Republic of Egypt  
06 Nov to 18 Nov 2022

# THE 27<sup>TH</sup> UN CLIMATE CHANGE CONFERENCE OF THE PARTIES (COP27) 第27屆聯合國氣候變化大會



## Key Outcomes:

### ➤ The El-Sheikh Climate Pact

## 主要成果:

### ➤ 謝赫氣候公約

20 additional countries signed on to the **Global Methane Pledge**, bringing the total to 150.

增加 20 個國家簽署了**全球甲烷承諾**，總數達到 150 個。

**Adaptation Fund** will be channeled to countries most vulnerable to climate impacts.

**適應基金**將流向最容易受到氣候影響的國家。

The **African Cities Water Adaptation Fund** was launched to provide funding and technical support on **water issues**.

**非洲城市水適應基金**的成立旨在為**水問題**提供資金和技術支援。

Countries reached consensus to establish **funding arrangements**, including a dedicated fund for **loss and damage**.

各國就建立**資金安排**達成共識，包括設立專門的**損失和損害基金**。

**Forest and Climate Leader's Partnership** was launched to **halt and reverse forest loss and degradation** by 2030.

**森林與氣候領袖夥伴關係**的啟動旨在到 2030 年**阻止和扭轉森林損失和退化的趨勢**。



# EU GREEN DEAL 歐盟綠色協議



— A roadmap launched in December 2019 for making the EU's economy sustainable.

— 2019年12月推出的路線圖，旨在實現歐盟經濟的可持續發展。

The European Green Deal will transform the EU into a modern, resource-efficient and competitive economy. 歐洲綠色新政將把歐盟轉變為一個現代化、資源節約型和有競爭力的經濟體。



## The EU will: 歐盟將會:



Become climate-neutral by 2050

在2050年實現氣候中和



Protect human life, animals and plants, by cutting pollution

透過減少污染來保護人類生命、動物和植物



Help companies become world leaders in clean products and technologies

幫助企業成為潔淨產品和技術的世界領導者



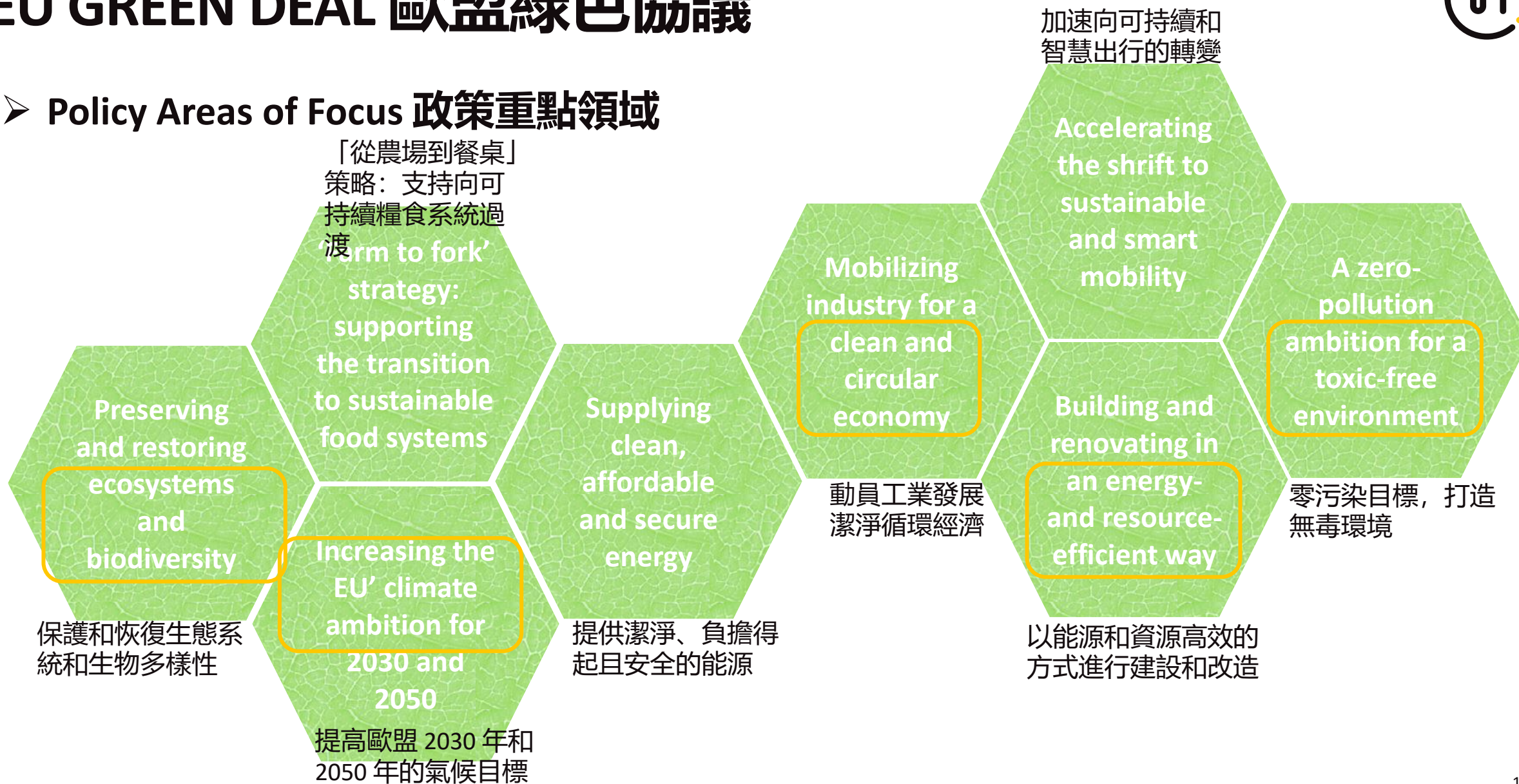
Help ensure a just and inclusive transition

幫助確保公正和包容性的過渡

# EU GREEN DEAL 歐盟綠色協議



## ➤ Policy Areas of Focus 政策重點領域





# EU GREEN DEAL 歐盟綠色協議

**Climate action** is at the heart of the European Green Deal.  
氣候行動是歐洲綠色協議的核心。

- **Climate action initiatives** under the Green Deal include: 到 2030 年進一步減少溫室氣體淨排放量至少 55%
- 綠色新政下的**氣候行動倡議**包括：

Setting a **legally binding target** of net zero GHG emissions by 2050

制定到 2050 年具有**法律約束力**的溫室氣體淨零排放目標



歐洲氣候法

歐洲氣候公約



Engaging **citizens** and **all parts of society** in climate action

讓**公民和社會各界**參與氣候行動

Further reducing net GHG emissions by at least **55% by 2030**



2030 年氣候目標計劃

歐盟對於氣候適應的新策略



Setting out how the EU can adapt to the unavoidable impacts of climate change and become **climate resilient** by 2050

闡述歐盟如何適應氣候變遷不可避免的影響，並在 2050 年之前實現**氣候適應能力**



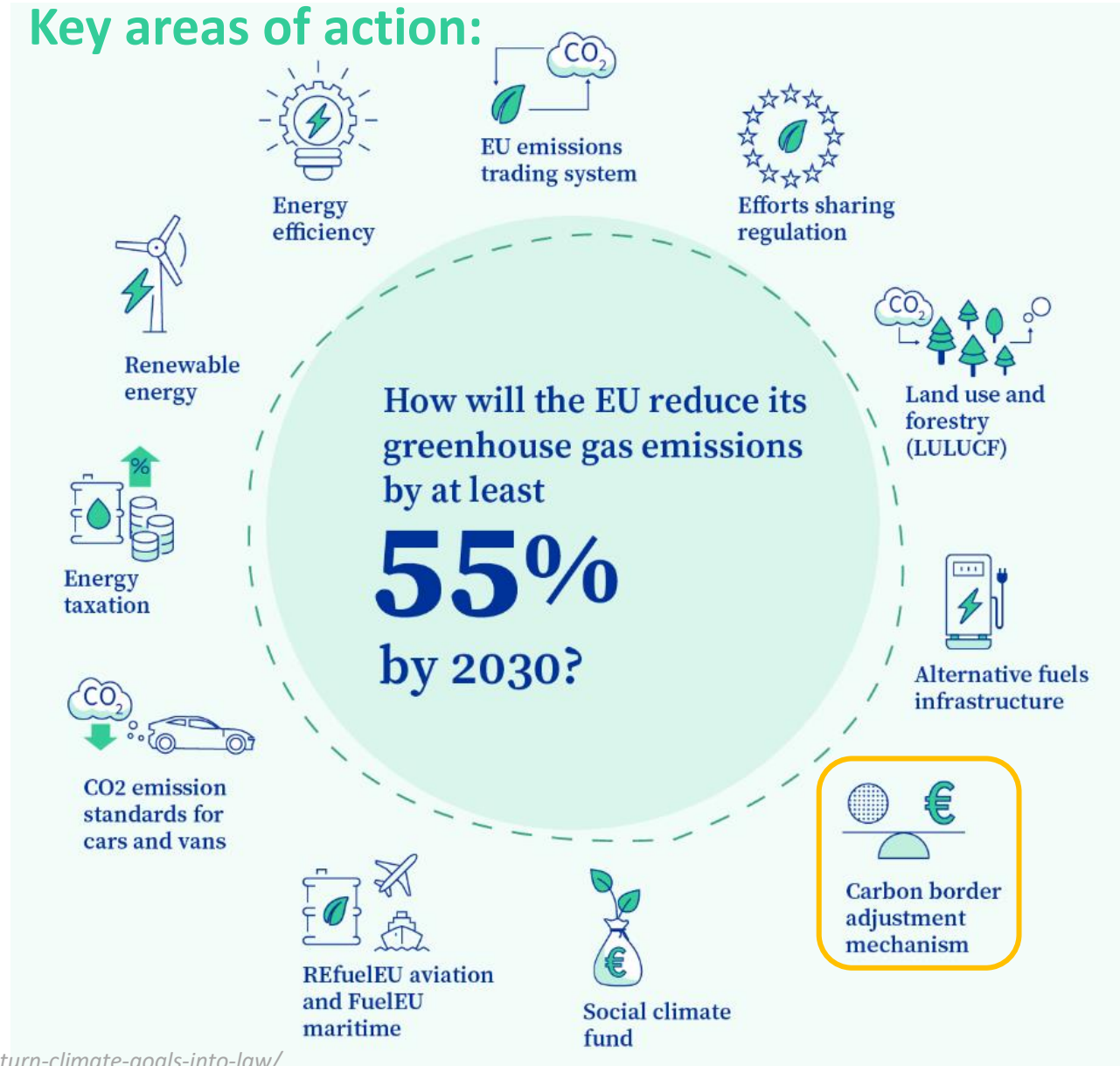
# EU GREEN DEAL 歐盟綠色協議



## ➤ Fit for 55 package ➤ ‘Fit for 55’ 包裹

- On 14 July 2021, as part of the EU Green Deal, the European Commission tabled a series of significant carbon reforms – the ‘Fit for 55’ package.
- 2021年7月14日，作為歐盟綠色協議的一部分，歐盟委員會提出了一系列重大碳改革——「Fit for 55」一攬子計畫。
- Aims to translate the ambitions of the Green Deal into law.
- 旨在將綠色協議的雄心壯志轉化為法律。

### Key areas of action:



# WHY CBAM 為什麼選擇CBAM



**EU ETS:** a cap-and-trade system to limit GHG emissions for certain sectors, for production within the EU

**CBAM:** extends to imported goods from third countries

EU ETS: 限額與交易體系，用於限制歐盟境內某些部門的溫室氣體排放

CBAM: 擴大到來自第三國的進口貨物

沒有 CBAM  
Without CBAM

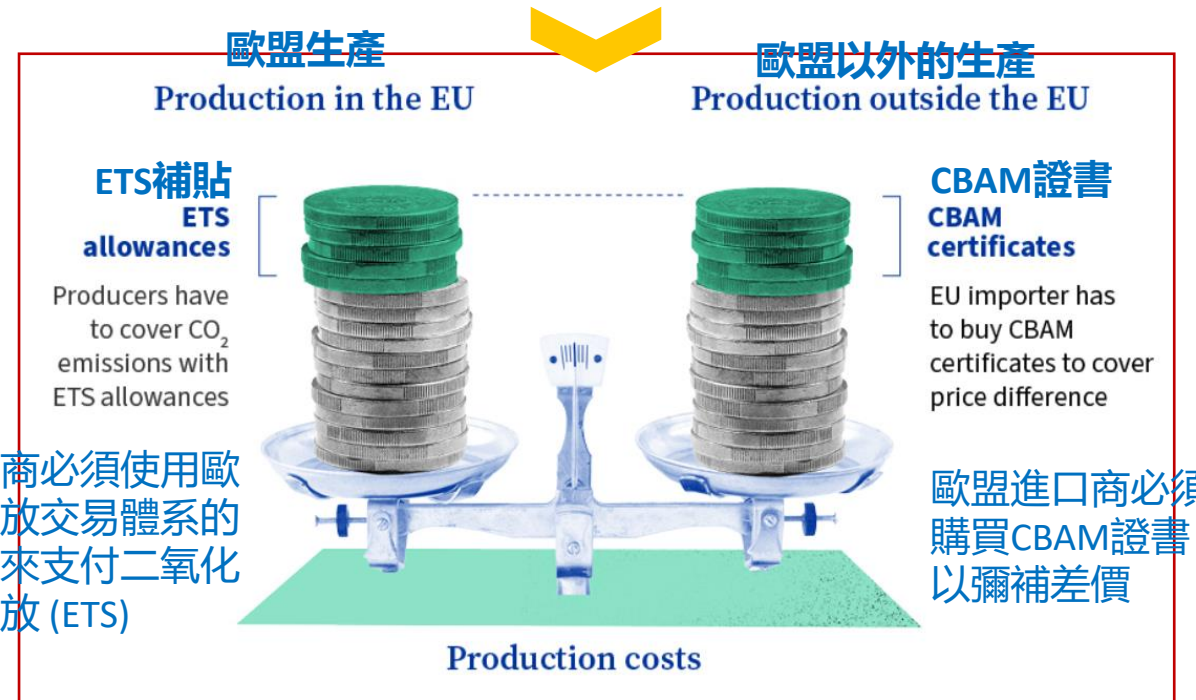
**將高排放生產轉移到歐盟以外的可能性**  
*Possibility of transferring high-emissions production outside EU*



生產商必須使用歐盟排放交易體系的配額來支付二氧化碳排放 (ETS)

有 CBAM  
With CBAM

**平等對待歐盟和外國生產**  
*Equal treatment of EU and foreign production*



生產商必須使用歐盟排放交易體系的配額來支付二氧化碳排放 (ETS)

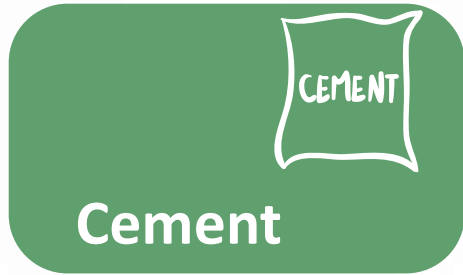
歐盟進口商必須購買CBAM證書以彌補差價

# CBAM PRODUCT SCOPE: 6 SECTORS

## CBAM 產品範圍：6 個領域

➤ Covered in the **first phase** (2023-2026):

➤ **第一階段涵蓋** (2023-2026):



Cement

水泥



Iron & Steel

鐵&鋼



Aluminium

鋁



Fertilisers

肥料



Electricity

電力



Hydrogen

氫

➤ Includes some precursors and downstream products such as fasteners (CN code 7318 XX XX)

➤ 包括一些前驅物和下游產品，例如緊固件 (CN code 7318 XX XX)

➤ In a **second stage** (after 2026), may extended to other sectors covered by the EU ETS

➤ 在**第二階段** (2026年之後) ，可能會擴展到EU ETS涵蓋的其他部門



# CBAM TIMELINE: 2 MAIN PHASES

## CBAM 時間表：2個主要階段

Transitional period (Oct 2023-2025)

過渡期 (2023年10月-2025年)

Definitive period (2026 onwards)

最終期限 (2026年起)

2023

2024

2025

2026

...

...

...

測量 and 報告

Measuring and Reporting

Key actions and actors:

- ✓ Reporting obligations begin for importers;
- ✓ Non-EU operators monitor and report emissions

Financial implications: No

Verification: Optional

- 主要行動與參與者：進口商開始承擔報告義務；非歐盟營運商監測和報告排放
- 財務影響：否
- 驗證：可選擇的

審查 and 評估

Reviewing and Assessing

Key actions and actors:

- ✓ Commission assess the possibility of extending the CBAM scope (product, emissions covered etc.)

主要行動與參與者：  
委員會評估擴大 CBAM 範圍（產品、涵蓋的排放等）的可能性

- 主要行動與參與者：進口商申報內含排放量並提交證書；逐步減少歐盟排放交易體系下的免費分配
- 財務影響：是
- 驗證：強制性

正式開始

Officially Starts

Key actions and actors:

- ✓ Importers declare the embedded emissions and surrender certificates;
- ✓ Gradual reduction of free allocation under the EU ETS

Financial implications: Yes

Verification: Mandatory

# WASTE FRAMEWORK DIRECTIVE (WFD) 廢棄物框架指令



— Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.

— 歐洲議會和理事會 2008 年 11 月 19 日關於廢棄物和廢除某些指令的指令 2008/98/EC。

## Basic waste management principles 廢棄物管理的基本原則

- without endangering human health and harming the environment
- without risk to water, air, soil, plants or animals
- without causing a nuisance through noise or odors
- without adversely affecting the countryside or places of special interest

不危害人體健康、不損害環境  
對水、空氣、土壤、植物或動物沒有風險  
不會因噪音或氣味造成滋擾  
不會對郊外或有特殊價值的地方產生不利影響

Introduces the "polluter pays principle" and the "extended producer responsibility".  
引入「污染者付費原則」和「生產者延伸責任」。

## Waste hierarchy



The **foundation** of EU waste management

歐盟廢棄物管理的**基礎**

# WASTE FRAMEWORK DIRECTIVE (WFD) 廢棄物框架指令



- General requirements – **Extended producer responsibility (EPR)**
- 一般要求 – **生產者延伸責任 (EPR)**

## Apply to

any natural or legal person who professionally **develops, manufactures, processes, treats, sells or imports products** (producer of the product) in Member States.

適用於

在成員國專業開發、製造、加工、處理、銷售或進口產品的任何自然人或法人（產品生產商）。

## General

Define in a clear way **the roles and responsibilities** of all relevant actors involved.  
明確定義所有相關參與者的**角色和責任**。

## minimum

## requirements

In line with the waste hierarchy, **set waste management targets**, aiming to attain at least the **quantitative targets** relevant for the EPR scheme.  
根據廢棄物等級，設定**廢棄物管理目標**，旨在至少達到與 EPR 計畫相關的**量化目標**。

## for

## EPR

**A reporting system** is in place **to gather data** on the products placed on the market of the Member State by the producers of products subject to EPR.  
建立了**報告系統**，**收集**受 EPR 約束的產品生產商投放到成員國市場的產品的**數據**。

## schemes

Ensure **equal treatment** of producers of products regardless of their origin or size.  
確保產品生產者受到**平等對待**，無論其來源或規模為何。

EPR 計劃的一般最低要求

# WASTE FRAMEWORK DIRECTIVE (WFD) 廢棄物框架指令



## • Targets 目標

The preparing for **re-use and the recycling** of waste materials from **households** shall be increased to a minimum of overall **50 %** by weight by 2020.

到2020年，家庭廢棄物的再利用和回收率至少提高到總量的**50%**。



The preparing for **re-use, recycling and other material recovery**, including backfilling operations using waste to substitute other materials, of **non-hazardous construction and demolition waste** shall be increased to a minimum of **70 %** by weight by 2020.

2020年，無害建築和拆除廢棄物的再利用、回收和其他材料回收準備工作，包括以廢棄物取代其他材料的回填作業，應增加到至少**70%**（以重量計算）。



The preparing for **re-use and the recycling of municipal waste** shall be increased to a minimum of **55 %**, **60%** and **65%** by weight by 2025, 2030 and 2035 respectively.

到2025年、2030年和2035年，都市垃圾的再利用準備和回收率分別提高到至少**55%**、**60%**和**65%**。



# WASTE FRAMEWORK DIRECTIVE (WFD) 廢棄物框架指令



## Proposed Amendment 擬議修正案

重點關注兩個資源  
密集型產業：紡織  
和食品。

Focus on two resource  
intensive sectors:  
**textiles and food.**

### Main Changes: 主要變化：

**Food waste reduction target by Dec.31<sup>st</sup>,  
2030** compared with 2020 as follow:

- Reduce **10% of total amount**
- Reduce **generation of waste per capita  
by 30%**

與2020年相比，2030年12月31日減少食物浪費的目標如下：  
減少總量的10%  
人均廢棄物產生量減少 30%

紡織品生產者延伸責任計劃  
紡織品、紡織品相關及鞋類生產商登記冊  
2025年1月1日前單獨收集紡織品

- **Extended producer responsibility** scheme for textiles
- Textile, textile-related and footwear **producer register**
- **Separate collection** of textiles by 1 Jan, 2025

The proposed **amendment** of the WFD is to meet the following general objectives:  
WFD 的擬議修訂旨在實現以下總體目標：

To **reduce environmental and climate impacts**, increase environment quality and improve public health associated **with textiles waste management in line with the waste hierarchy**

為了減少環境和氣候影響，提高環境品質並改善與根據廢物等級管理紡織品廢物相關的公共衛生

To reduce the environmental and climate impacts of food systems associated with **food waste generation. Preventing food waste** would also contribute to food **security**

減少與食物垃圾產生相關的食物系統對環境和氣候的影響。防止食物浪費也有助於糧食安全



# EU DIRECTIVE ON SINGLE-USE PLASTICS

## 歐盟一次性塑膠指令



歐洲議會和歐洲理事會通過指令 (EU) 2019/904—  
一次性塑膠指令 (SUPD) 於2019年6月5日

The European Parliament and the European Council adopted Directive (EU) 2019/904  
— **the Single-use Plastics Directive (SUPD)** on 5<sup>th</sup> June 2019

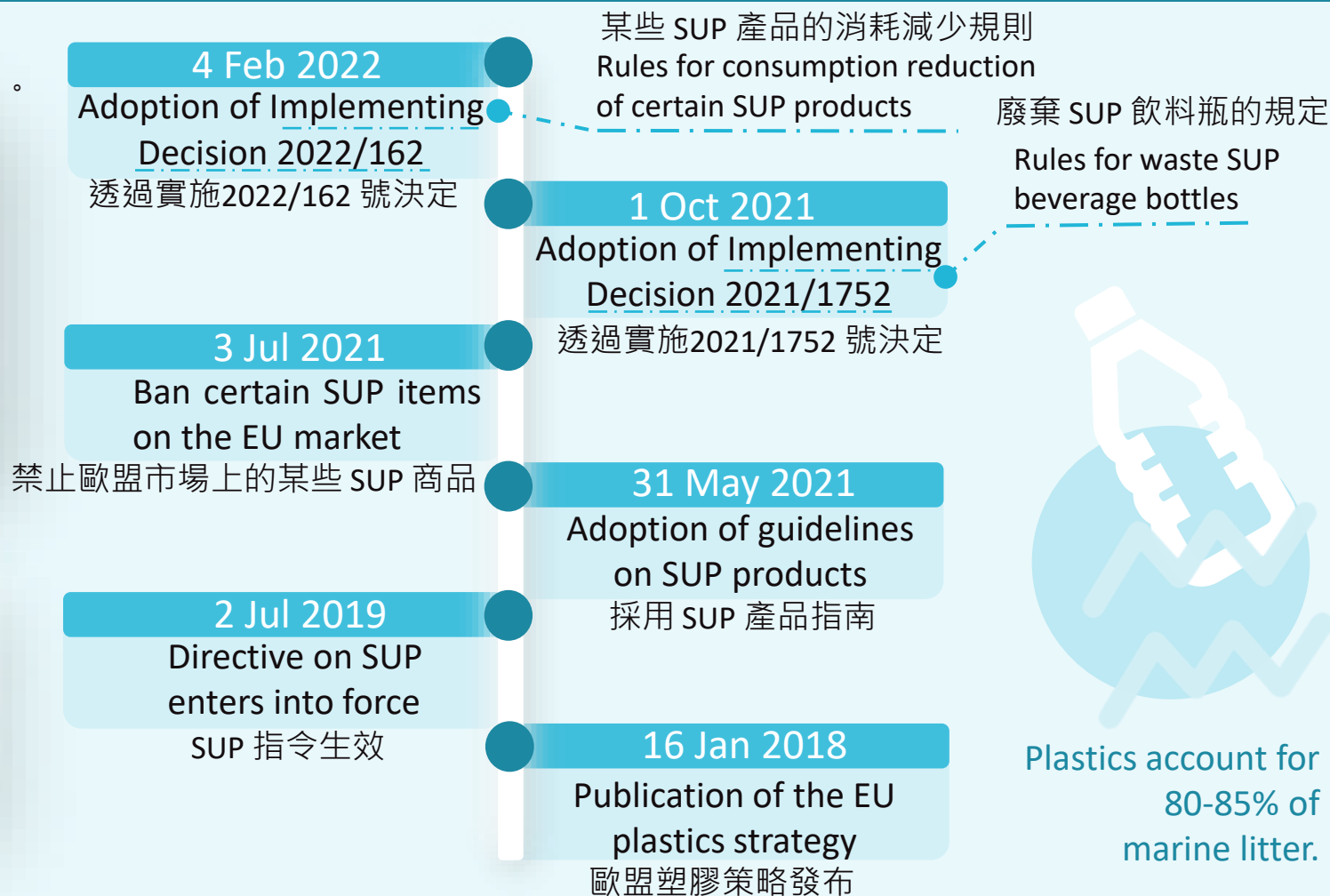
### Aims

目標  
防止和減少**某些塑膠製品**對環境的影響。  
推動**循環經濟**轉型。

- To prevent and reduce the impact of **certain plastic products** on the environment.
- To promote a transition to a **circular economy**.

透過確保有**更可持續的替代品且價格實惠的**  
一次性塑膠 (SUP) 產品無法推出市場。

**By ensuring that single-use plastic (SUP) products, for which **more sustainable alternatives** are **available and affordable**, **cannot be placed** on the market.**





# EU DIRECTIVE ON SINGLE-USE PLASTICS 歐盟一次性塑膠指令

## • Key Rules and Actions 關鍵規則和行動

### 市場限制

自 2021 年 7 月 3 日起，所列 SUP 產品不得投放市場：

棉花棒  
餐具、盤子、吸管和攪拌器  
氣球和氣球棒  
食品容器  
飲料杯  
飲料容器  
煙頭  
塑膠袋  
數據包和包裝  
濕紙巾和衛生用品

### Market restrictions

The listed **SUP** products **cannot be placed on the market** from 3 July 2021:

- Cotton bud sticks
- Cutlery, plates, straws and stirrers
- Balloons and sticks for balloons
- Food containers
- Cups for beverages
- Beverage containers
- Cigarette butts
- Plastic bags
- Packets and wrappers
- Wet wipes and sanitary items

### Separate collection and design requirements for SUP bottles

SUP 瓶的單獨收集和設計要求

- A collection target of **90% recycling** for SUP plastic bottles by **2029**, with an interim target of **77% by 2025**.  
到 2029 年，SUP 塑膠瓶的回收率達到 90%，中期目標是 2025 年達到 77%。
- **PET bottles** should contain at least **25% recycled plastic** in their manufacture by 2025, and **30% in all plastic beverage bottles by 2030**.  
到 2025 年，PET 瓶生產過程中應包含至少 25% 的再生塑料，到 2030 年，所有塑膠飲料瓶中應包含 30% 的再生塑料。

# EU DIRECTIVE ON SINGLE-USE PLASTICS

## 歐盟一次性塑膠指令



### • Key Rules and Actions 關鍵規則和行動

#### Extended producer responsibility 生產者延伸責任

- Member states must establish their own **EPR schemes** by 2021
- The directive incorporates the '**polluter pays**' principle.

成員國必須在 2021 年之前建立自己的 **EPR 計劃**

該指令納入了「**污染者付費**」原則。

#### Compulsory marking 強制標記

Certain disposable plastic products placed on the market must carry a **visible, clearly legible and indelible marking** affixed to its packaging or to the product itself.

某些推出市場的一次性塑膠產品必須在其包裝或產品本身上貼有**可見、清晰易讀且不可磨滅**的標記。

#### Awareness-raising 提高認識

Member States must also take measures to:

- inform consumers and to encourage **responsible consumer behavior**;
- make consumers aware of **reusable alternative products** and the impact of **inappropriate disposal** of SUP waste.

成員國也必須採取措施：

告知消費者並鼓勵**負責任的消費者行為**；讓消費者了解**可重複使用的替代產品**以及 SUP 廢棄物**處置不當的影響**。

# EU Corporate Sustainability Due Diligence Directive

## 歐盟企業可持續發展盡職調查指令



### A Corporate Due Diligence Duty

- Identifying, ending, preventing, mitigating and accounting for negative **human rights and environmental impacts** in the company's own operations, their subsidiaries and their value chains.
- **Ensure business strategy is compatible with limiting global warming to 1.5 °C in line with the Paris Agreement**

企業盡職調查義務

識別、結束、預防、減輕和核算公司本身營運、子公司及其價值鏈中對人權和環境的負面影響。

確保業務策略符合《巴黎協定》將全球暖化限制在 1.5°C 以內



### Duties for the Directors

- Setting up and overseeing the implementation of the due diligence processes and integrating due diligence into the corporate strategy
- Take into account the human rights, climate change and environmental consequences of their decisions

董事的職責

建立並監督盡職調查流程的實施，並將盡職調查納入公司策略

考慮其決策對人權、氣候變遷和環境的影響

# EU Corporate Sustainability Due Diligence Directive



The EU Commission adopted a proposal for a Directive on corporate sustainability due diligence on 23 February 2022

## Which companies will the new EU rules apply to?

### Large EU-based limited liability companies:

- **Group 1:** EU companies which are the ultimate parent company of a group that:
  - ≥ 500 employees
  - Net worldwide turnover > €150 million
- **Group 2:**
  - > 250 employees;
  - Net worldwide turnover > €40 million.
  - Operating in defined **high impact sectors**.
  - The rules start to apply two years later than for Group 1.

\*The number of employees and turnover of a company's branches, including temporary agency workers and other workers in non-standard forms of employment, shall be included in calculating the thresholds.

### Non-EU companies

Third country companies active in the EU with turnover threshold aligned with Group 1 and 2, generated in the EU.

- **Group 1:**
  - Net worldwide turnover > €150 million, while ≥ €40 million was generated in the EU.
- **Group 2:** Non-EU company which are the ultimate parent company of a group that:
  - ≥ 500 employees;
  - Net worldwide turnover > €150 million, while ≥ €40 million was generated in the EU.

\*The calculation of net turnover should include turnover generated by third party companies with whom the company and/or its subsidiaries has entered into a vertical agreement in the Union in return for royalties.

### High impact sectors

- Textiles, wearing apparel, leather, clothing, footwear and related products;
- Agriculture, forestry, fisheries, food product;
- Mineral resources, metal products, chemicals;
- Construction and related activities, financial services, investment services;
- information and communication technologies or related services.

# EU Corporate Sustainability Due Diligence Directive 歐盟企業可持續發展盡職調查指令



歐盟委員會於 2022 年 2 月 23 日通過了企業可持續發展盡職調查指令的提案

## 歐盟新規定將適用於哪些公司？

### 大型歐盟有限責任公司：

第 1 組：作為以下集團的最終母公司的歐盟公司：

- ≥ 500 員工
- 全球淨營業額 > 1.5 億歐元

- 第 2 組：
- > 250 名員工；
- 全球淨營業額 > 4000 萬歐元。
- 在特定的高影響產業開展業務。
- 這些規則比第一組晚兩年開始適用。

\*公司分公司的員工人數和營業額，包括臨時代理工和其他非標準就業形式的工人，應納入計算門檻。

### 非歐盟公司

在歐盟開展業務的第三國公司，其營業額門檻與在歐盟產生的第 1 組和第 2 組一致。

第 1 組：

全球淨營業額 > 1.5 億歐元，其中歐盟淨營業額 ≥ 4,000 萬歐元。

第 2 組：非歐盟公司，是以下集團的最終母公司：

員工人數 ≥ 500 人；

全球淨營業額 > 1.5 億歐元，其中歐盟淨營業額 ≥ 4,000 萬歐元。

\*淨營業額的計算應包括與公司和/或其子公司在聯盟中簽訂縱向協議以換取特許權使用費的第三方公司產生的營業額。

### 高影響力產業

紡織品、服裝、皮革、服裝、鞋類及相關產品；

農業、林業、漁業、食品；

礦產資源、金屬製品、化學品；

建築及相關活動、金融服務、投資服務；

資訊和通訊技術或相關服務。

## Due Diligence Policy

- In scope companies are required to establish a due diligence policy that contains:

**A description of the company's approach** to due diligence with short-, medium-, and long-term measures and targets.

**A code of conduct** defining the rules, principles, and measures to be followed and implemented where relevant throughout the company and its subsidiaries across all corporate operations.

A description of the **processes put in place** and **appropriate measures** taken to implement, including the relevant measures in value chain, employment and purchasing practices with entities having a business relationship, monitoring and verification measures, and adequate policies to avoid passing on the costs of the due diligence process to business partners in a weaker position.

Code of conduct applies in **all relevant corporate functions and operations**, including pricing practices and purchasing decisions, for instance on trading and procurement.

The due diligence policy should be **updated when significant changes occur**.

**\*Parent companies** should be able to perform actions which can contribute to the due diligence of their subsidiaries.



# EU Corporate Sustainability Due Diligence Directive

## 歐盟企業可持續發展盡職調查指令



### 盡職調查政策

➤ 在範圍內，公司必須制定盡職調查政策，其中包含：

**描述**公司的盡職調查方法以及短期、中期和長期措施和**目標**。



**行為準則**，定義在整個公司及其子公司的所有公司營運中應**遵循和實施的規則**、原則和措施。

對已**實施的流程**和為實施而採取的**適當措施的描述**，包括價值鏈中的相關措施、與有業務關係的實體的僱傭和採購實踐、監控和驗證措施以及避免轉嫁成本的適當政策對處於弱勢地位的商業夥伴進行盡職調查。

**行為準則**適用於所有**相關的公司職能和運營**，包括定價實務和採購決策，例如貿易和採購決策。

當發生重大變化時，應**更新盡職調查政策**。

**\*母公司**應該能夠採取有助於其子公司盡職調查的行動。

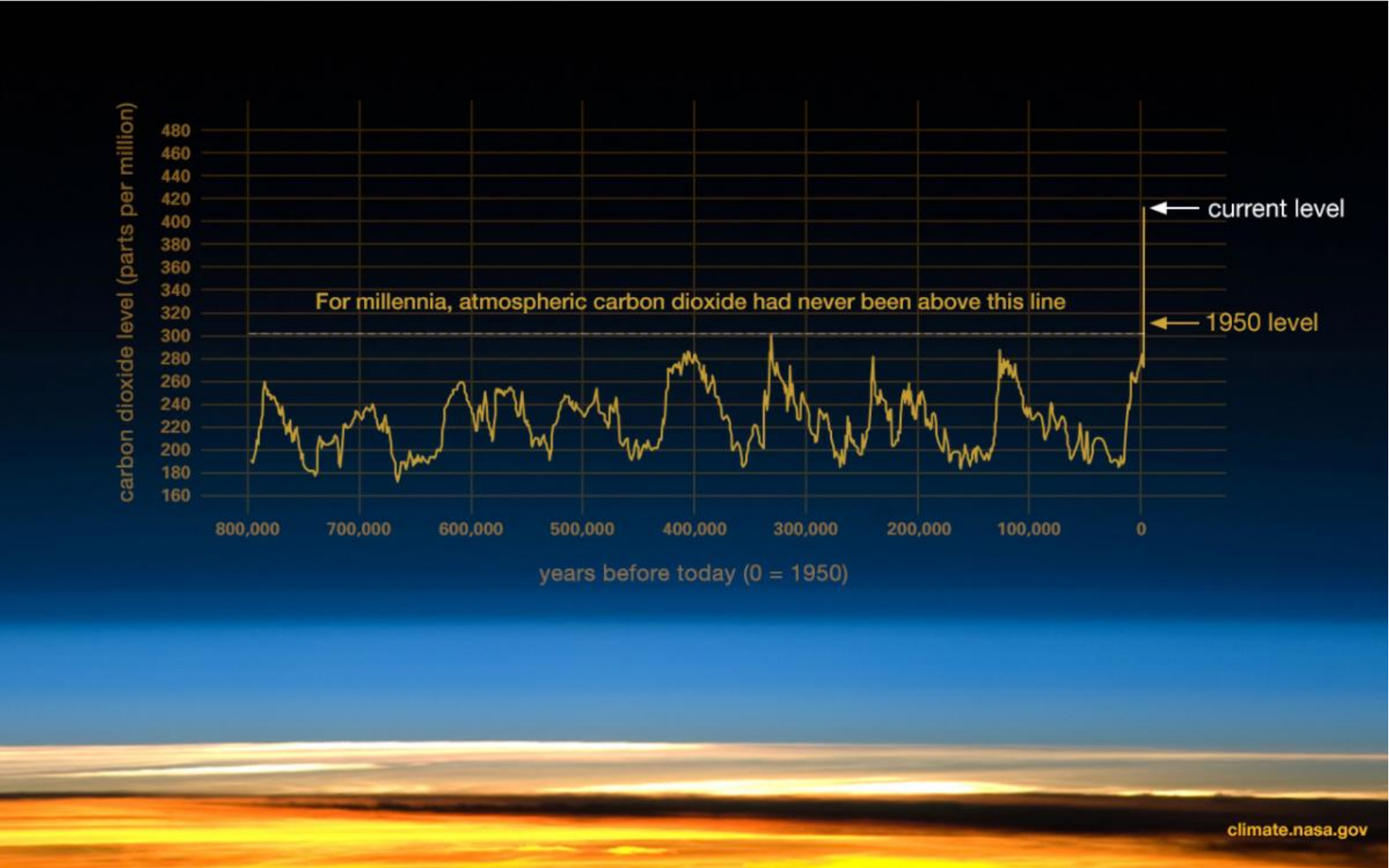


02

**CARBON NEUTRAL AND NET  
ZERO**  
**碳中和和淨零**



# CLIMATE CHANGE AND GLOBAL WARMING 氣候變遷與全球暖化

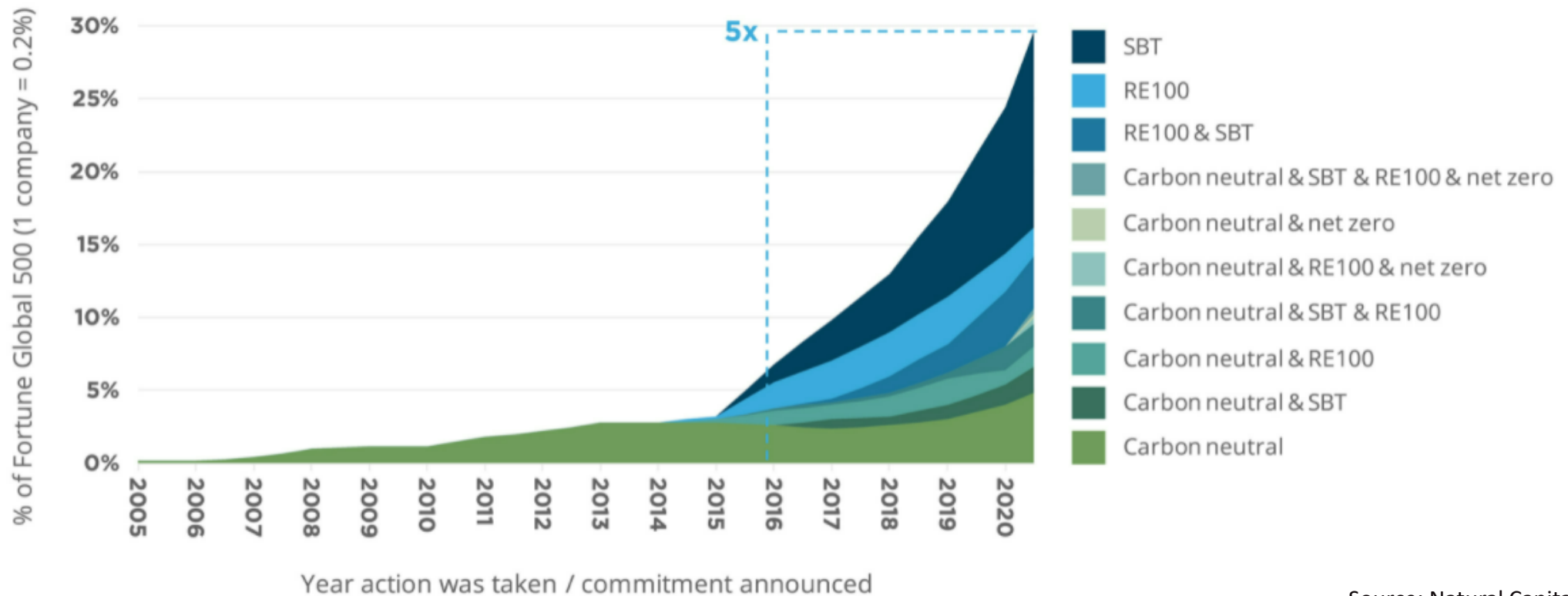


Source: NASA

# MOVEMENT TOWARDS NET ZERO AND CARBON NEUTRAL - WILL YOU BE A LEADER OR FOLLOWER? 邁向淨零和碳中和—您會成為領導者還是追隨者?



Figure 1: Percentage of Fortune Global 500 companies that have made a public commitment that they are, or will be by 2030: carbon neutral, meeting an RE100, SBT or net zero target.



Source: Natural Capital Partners

# PUTTING POTENTIAL RISK (OR OPPORTUNITY) INTO PERSPECTIVE

## 正確看待潛在風險（或機會）



- Growing carbon allowance prices:
  - “The world’s carbon markets grew by **more than 2.5 times in 2021** to reach a turnover of €760 billion compared to €288 bln in 2020, as prices in six of the seven main compliance schemes rose by an average 225%”
  - “EU carbon prices could approach **€200** by the end of this decade should the bloc’s ‘Fit for 55’ climate and energy policy package be implemented as proposed, according to a Polish think-tank”

(Source of Headlines: Carbon Pulse)

不斷上漲的碳配額價格：

“全球碳市場在 2021 年增長了 **2.5 倍以上**，營業額達到 7,600 億歐元，而 2020 年為 2,880 億歐元，七大主要合規計劃中有六項的價格平均上漲了 225%”

“根據波蘭一家智囊團的說法，如果歐盟 ‘適合 55 歲’ 的氣候和能源政策方案按照提議實施，那麼到本十年末，歐盟碳價可能會接近 **200 歐元**。”

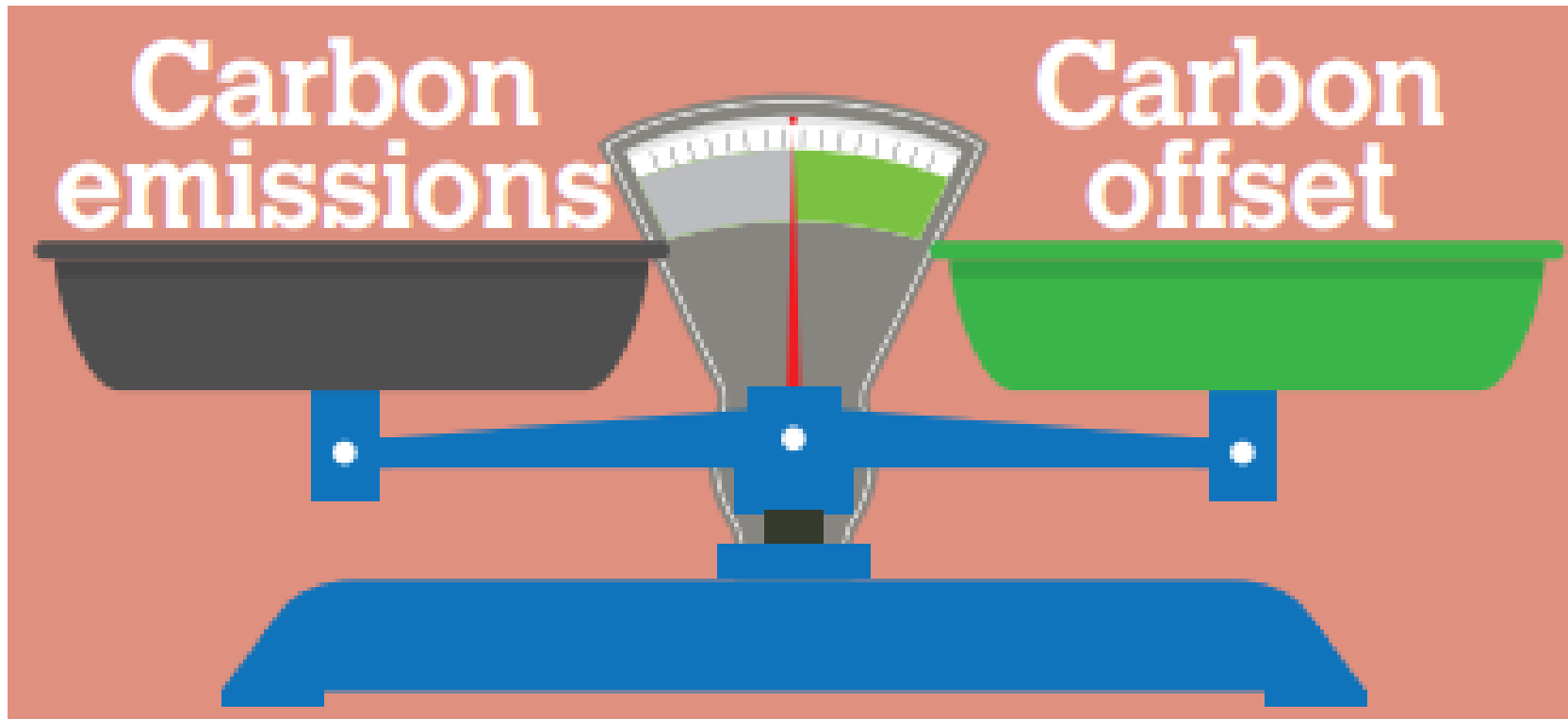


source: tradingeconomics.com



# COUNTER-BALANCING GHG EMISSIONS 平衡溫室氣體排放

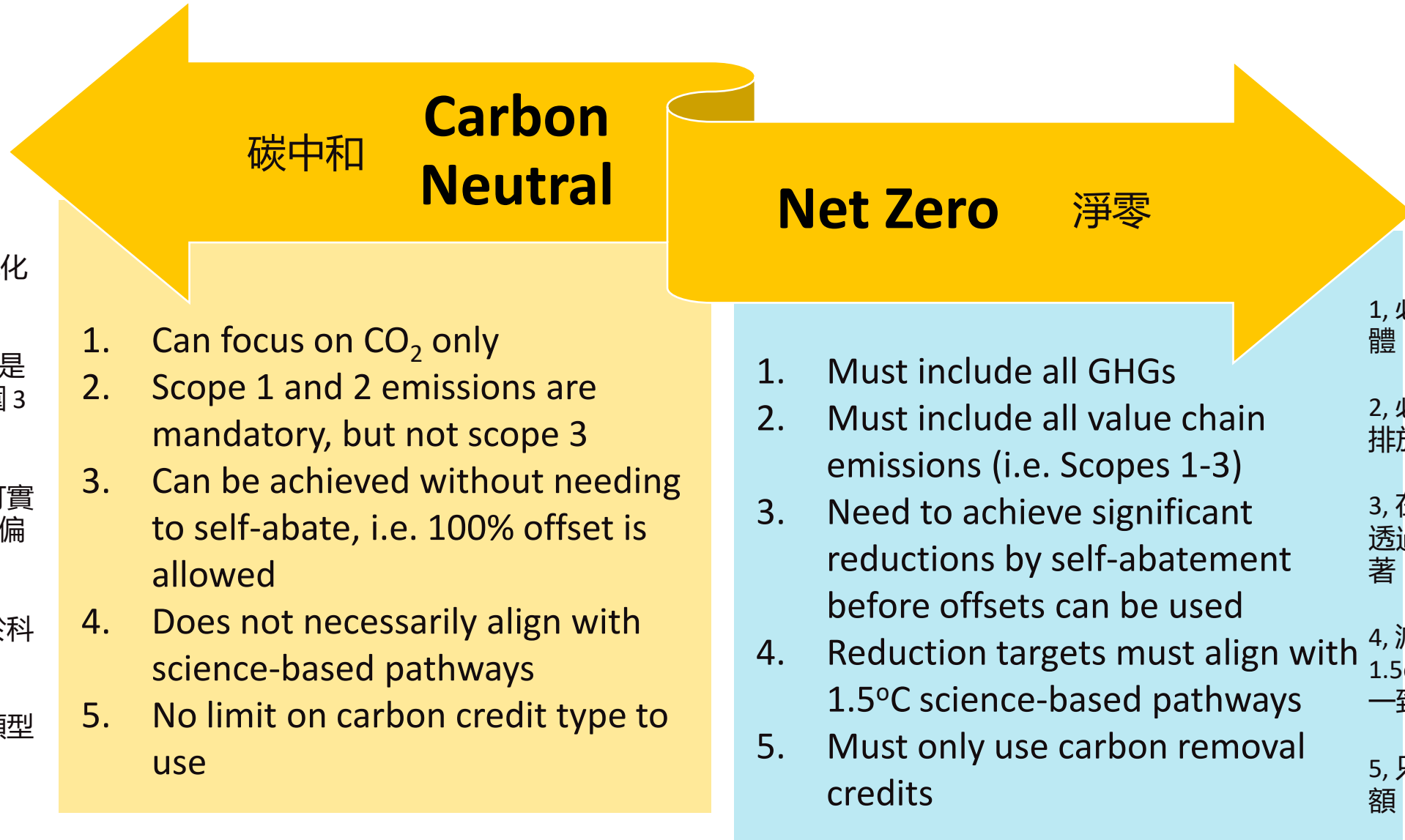
- Balancing carbon emissions with carbon offsets, such that net emissions are zero
- 平衡碳排放與碳補償，使淨排放量為零



Source: HKSAR Government



# WHAT'S THE DIFFERENCE? 有什麼不同?



- 1, 可以只關注二氧化碳
- 2, 範圍 1 和 2 排放是強制性的, 但範圍 3 不是強制性的
- 3, 無需自衰減即可實現, 即允許 100% 偏移
- 4, 不一定符合基於科學的途徑
- 5, 使用碳信用額類型沒有限制

- 1, 必須包括所有溫室氣體
- 2, 必須包括所有價值鏈排放 (即範圍 1-3)
- 3, 在使用抵消之前需要透過自我消除來實現顯著
- 4, 減排目標必須與 1.5oC 的科學路徑保持一致
- 5, 只能使用碳清除信用額

03

**CARBON NETZERO JOURNEY**  
**碳淨零之旅**



## 03 CONTENTS

- Carbon Netzero Journey
- Science Based Targets initiative (SBTi)
- Carbon Emission Reduction Solutions
- Carbon offsets/Carbon credits
- Carbon Capture Utilization & Storage (CCUS)
- Carbon Disclosure Project (CDP)



## 03 內容

- 碳淨零之旅
- 科學碳目標倡議 (SBTi)
- 碳減排解決方案
- 碳抵銷/碳信用額
- 碳捕集利用與封存 (CCUS)
- 碳資訊揭露項目 (CDP)



# KEY STEPS TO GETTING TO CARBON NEUTRAL OR NET ZERO

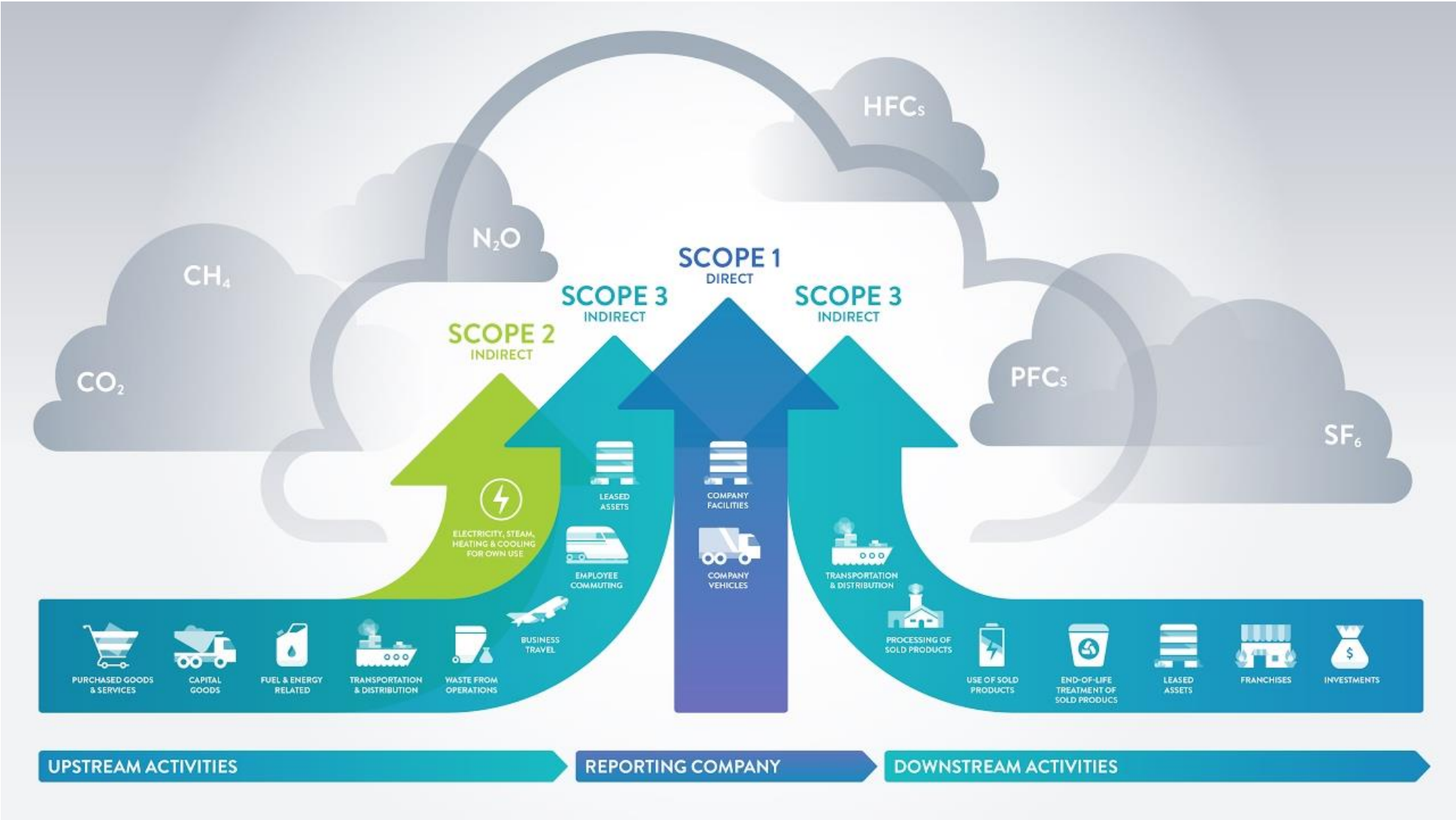
## 實現碳中和或淨零的關鍵步驟



To read more about this, please download our 'Road to Net Zero' Whitepaper: <https://www.intertek.com/knowledge-education/the-road-to-net-zero-whitepaper/>

要了解更多相關信息，請下載我們的“淨零之路”白皮書

# GHG INVENTORY 溫室氣體盤查



Source: GHG Protocol Standard

# Science Based Targets



- Science Based Targets is a joint initiative of CDP, the UN Global Compact (UNGC), the World Resources Institute (WRI) and WWF.
- Targets adopted by companies to reduce greenhouse gas (GHG) emissions are considered “science-based” if they are in line with what the latest climate science says is necessary to meet the goals of the Paris Agreement – **to limit global warming to well-below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C.**

Partner organizations



United Nations  
Global Compact

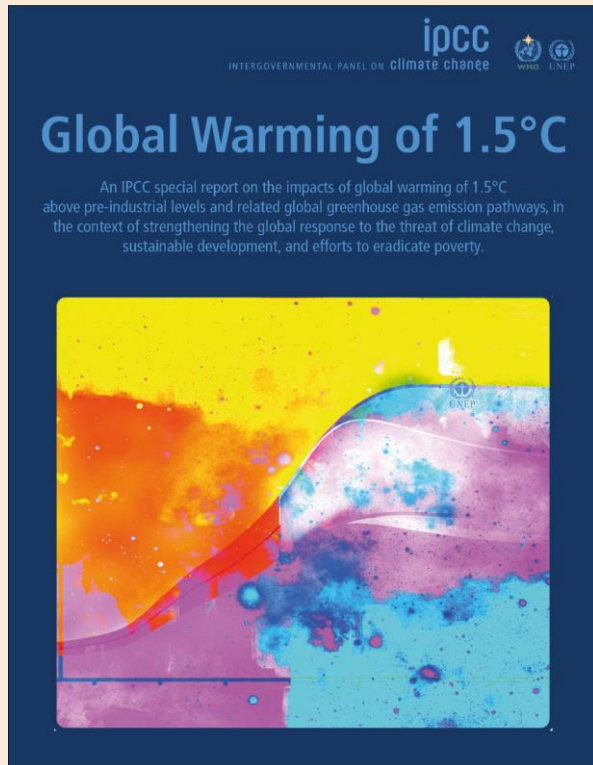


WORLD  
RESOURCES  
INSTITUTE



# Science Based Targets

## 科學碳目標



科學碳目標是 CDP、聯合國全球契約 (UNGC)、世界資源研究所 (WRI) 和世界自然基金會 (WWF) 的聯合倡議。

公司為減少溫室氣體(GHG) 排放而採取的目標，如果符合最新氣候科學所說的實現《巴黎協定》目標所必需的目標（將全球暖化限制在遠低於以下水準），則被認為是「基於科學的」比工業化前水平高 2°C，並努力將升溫限制在 1.5°C。

Partner organizations



United Nations  
Global Compact



WORLD  
RESOURCES  
INSTITUTE





# SCIENCE BASED TARGET 科學碳目標

科學碳目標為公司和金融機構減少溫室氣體 (GHG) 排放提供了明確的途徑，有助於防止氣候變遷的最壞影響和麵向未來的業務成長。

Science-based targets provide a clearly-defined pathway for companies and financial institutions to reduce greenhouse gas (GHG) emissions, helping prevent the worst impacts of climate change and future-proof business growth.

Targets are considered 'science-based' if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to well-below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C.

短期碳目標



長期碳目標



## Boundary

How much coverage or your emissions inventory is required?

Scope 1+2: **95%**  
Scope 3: If >40% of total emissions, **67% coverage**



## Ambition

What is the ambition level in terms of limiting temperature rise?

Scope 1+2: **1.5°C**  
Scope 3: **Well-below 2°C**



## Timeframe

What is the maximum timeframe to meet your targets?

**5-10 years**

Scope 1+2: **95%**  
Scope 3: **90%**

Scope 1+2+3: **1.5°C**

**2050 latest**

Source: SBTi

如果目標符合最新氣候科學認為實現《巴黎協定》目標所必需的目標，則被認為是「基於科學的」——將全球暖化限制在較工業化前水平遠低於2°C的範圍內，並努力限制升溫至1.5°C。



# THE SBT SETTING PROCESS – SBT 設定過程



# SBTI TARGET APPROVAL ON OFFICIAL WEBSITE

## SBTI 目標在官方網站上獲得批准



Join Our Team News & Events FAQs [SET A TARGET](#)

About Standards and guidance Target services Target dashboard Resource library Contact



Join Our Team News & Events FAQs [SET A TARGET](#)

About Standards and guidance Target services Target dashboard Resource library Contact

### Target dashboard

Disney  [FILTERS](#) [DOWNLOAD XLS](#)

COMPANY/FINANCIAL INSTITUTION	TARGETS			ORGANIZATION TYPE	
	NEAR TERM	LONG TERM	NET-ZERO		
<b>The Walt Disney Company</b> United States of America (USA), North America	1.5°C	-	-	Company	<a href="#">View less</a>

<b>Date published/updated</b> 2023	<b>Target summary</b> Near term: 1.5°C by FY2030	<b>Target</b> The Walt Disney Company commits to reduce absolute scope 1 and 2 GHG emissions 46.2% by FY2030 from a FY2019 base year'. The Walt Disney Company also commits to reduce absolute scope 3 GHG emissions from purchased goods and services, capital goods, fuel and energy related activities, upstream transportation and distribution, waste generated in operations, business travel, employee commuting and franchises 27.5% within the same timeframe. The Walt Disney Company further commits that 20% of its suppliers by emissions covering purchased goods and services will have science-based targets by FY2027 The Walt Disney Company finally commits that 72% of its customers (licensees) by emissions covering franchises will have science-based targets by FY2027 'The target boundary includes biogenic land-related emissions and removals from bioenergy feedstocks.
---------------------------------------	---	--

Showing 1 - 1 of 1 Per page  [<](#) [>](#)

### Summary

1 Total no. of companies	1 Companies with approved targets
-----------------------------	--------------------------------------

### Key

- SBTi publicly discloses temperature alignment based on the ambition of a company's scope 1 and 2 targets. Scope 3 targets are also evaluated during the target validation process. We thoroughly review scope 3 ambition to ensure it meets the temperature alignment or supplier engagement specifications outlined in the SBTi criteria. We are carrying out a comprehensive review of our scope 3 target setting methods and criteria to ensure they are fully aligned with the Net-Zero Standard.



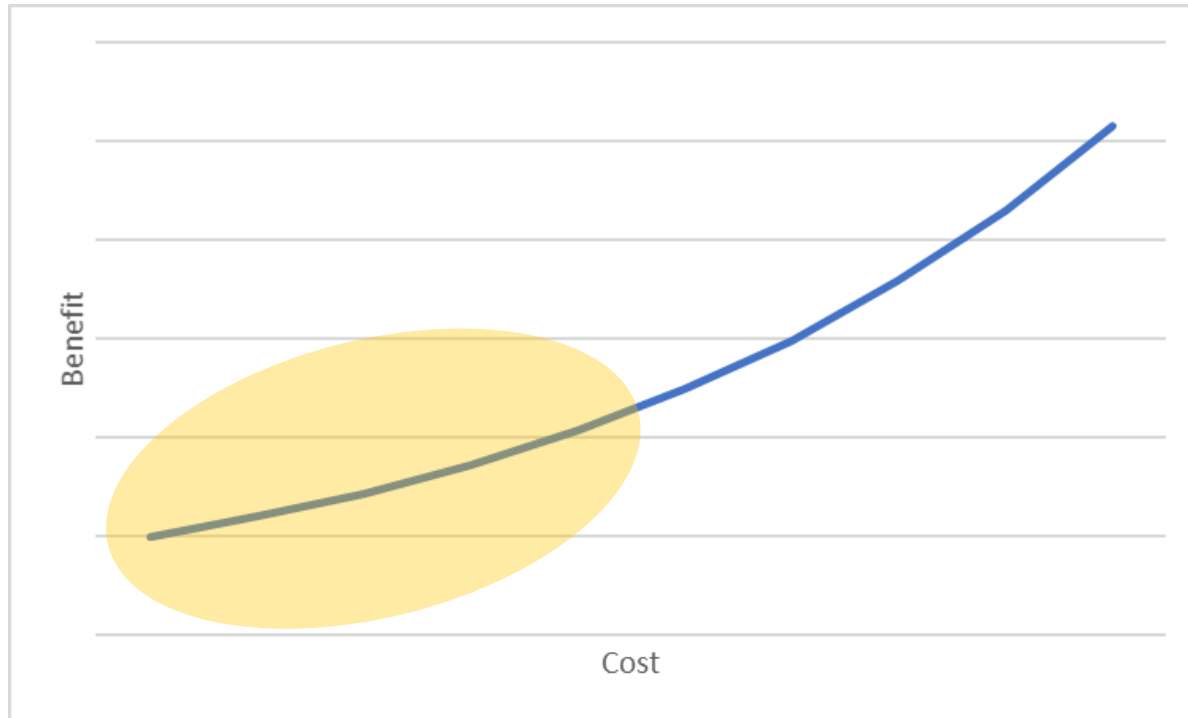
# OVERVIEW OF REDUCTION APPROACH – 減排方法簡介












Target Reduction Approach 目標減排方法	Method Description 方法說明	Scope 1 & 2 (1.5C)	Scope 3 (WB2C)
<b>Absolute Contraction</b> 絕對收縮法	This method requires companies to reduce absolute emissions at the same rate 這種方法要求企業以相同的速度減少絕對排放量	✓	✓ (can follow 1.5C)
<b>Physical Intensity Reduction</b> 物理強度降低法	<u>Option 1:</u> Following the Sectoral Decarbonization Approach (SDA) for an applicable sector 方案 1：針對適用產業遵循產業脫碳方法 (SDA)  <u>Option 2:</u> Physical intensity reduction to cap absolute emissions at a base year level and achieve a physical intensity reduction at a minimum of 7% annual compound rate 方案 2：降低物理強度，將絕對排放量限制在基準年水平，並以至少 7% 的年複合率實現物理強度降低	✓	✓
<b>Renewable Electricity</b> 可再生能源	Companies actively procure at least 80% renewable electricity by 2025 and 100% renewable electricity by 2030 企業到 2025 年積極採購至少 80% 的再生電力，到 2030 年積極採購 100% 的再生電力	✓ (Scope 2 only)	
<b>Economic Intensity Reduction</b> 經濟強度降低	Economic intensity targets with indicators based on value added and reduction at a minimum of 7% annual compound rate 經濟強度目標的指標是基於年複合率至少 7% 的增加值和減少值		✓
<b>Supplier Engagement</b> 供應商參與	Commit a percent of suppliers by spend/by emissions covering a specific Scope 3 category to submit SBT within 5 years 承諾一定比例的供應商（按支出/按排放量）涵蓋特定範圍 3 類別，並在 5 年內提交 SBT		✓

# KNOWING YOUR OPTIONS – LOW-HANGING FRUITS

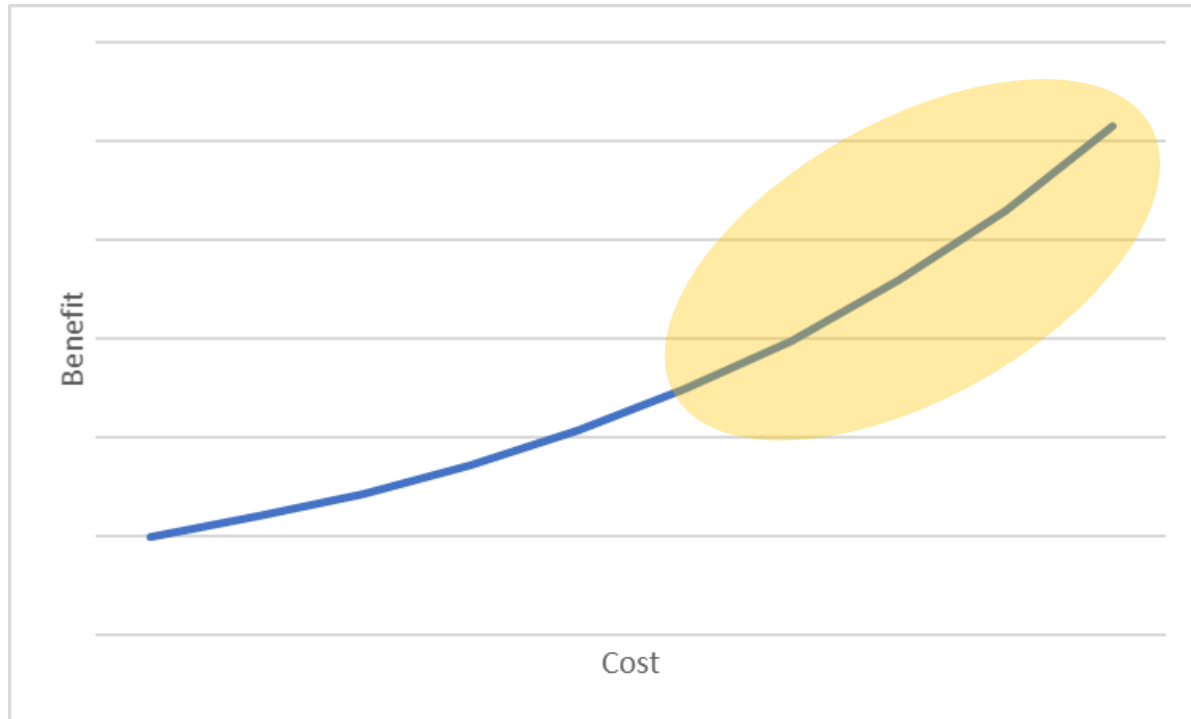
## 了解您的選擇 – 唾手可得的成果



### Examples: 例子:

-  Encourage behavior change  
鼓勵行為改變
-  Retrofitting inexpensive appliances, e.g. LED lamps  
改造廉價電器，例如 LED 燈
-  Purchasing Energy Attribute Certificates / Renewable Energy Certificates  
購買能源屬性證書/再生能源證書
-  Installing PV panels on site  
安裝太陽能電板
-  Reduce waste disposal and recycling  
減少廢棄物和回收
-  Installing water-saving devices  
安裝節水裝置
-  Review business travel arrangements and modes  
檢視商務旅行安排和方式
-  Allow greater work-from-home flexibility  
提供更大的在家工作彈性
-  Tree planting  
植樹

# KNOWING YOUR OPTIONS – HIGH-HANGING FRUITS



- **Examples:例子 :**



Retrofitting HVAC systems 改造暖通空調系統



Adopting hydrogen in supplier sites 在供應商場所採用氫氣



Carbon capture and storage 碳捕獲和儲存



AI or machine learning tools to improve HVAC efficiencies 用於提高 HVAC 效率的人工智慧或機器學習工具

- **Challenges that you may face: 您可能面臨的挑戰 :**



Technological constraints 技術限制



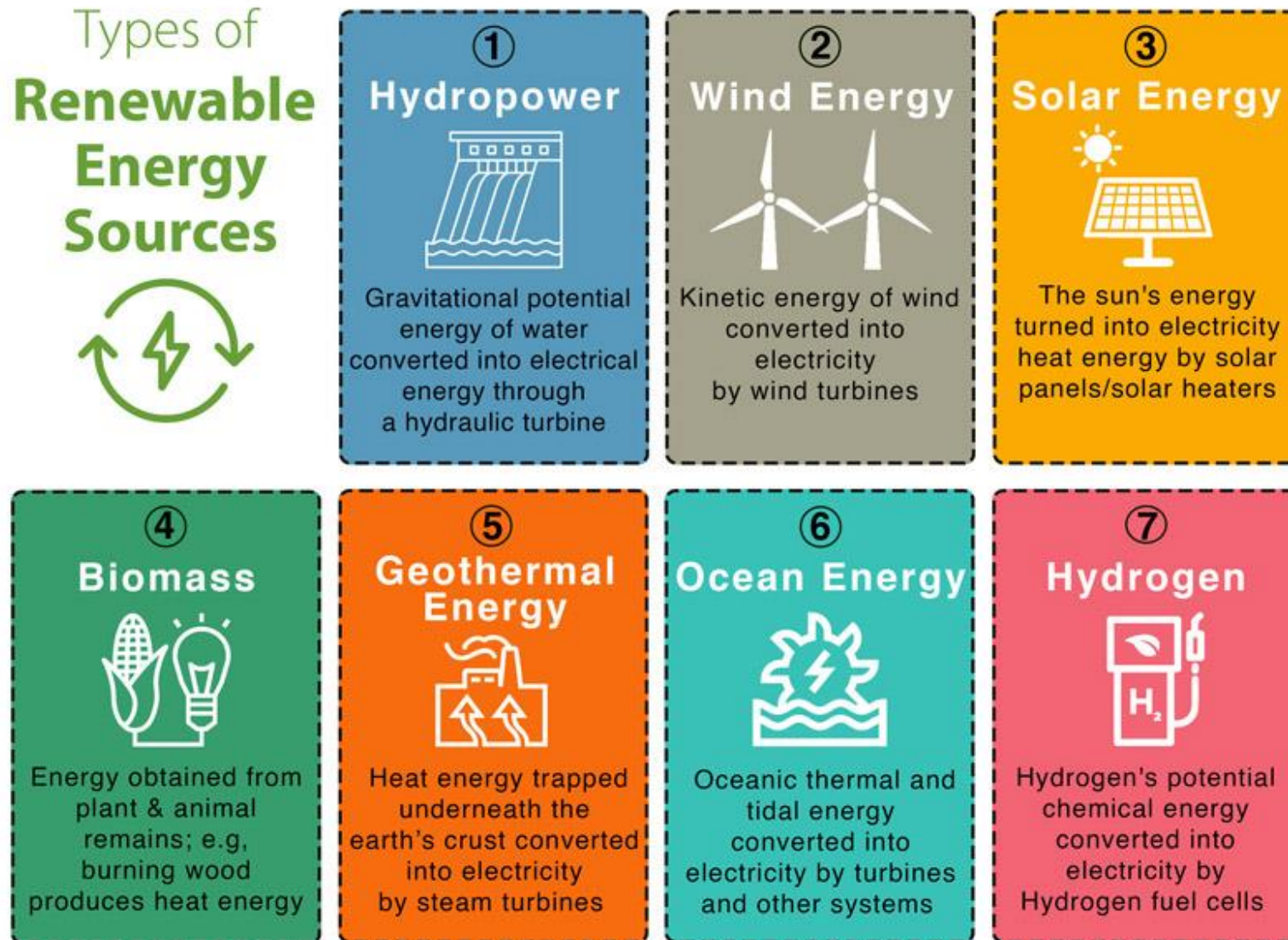
Site constraints 場地限制



Investment constraints 投資限制

- Review the latest findings of the benefits 回顧最新的好處發現
- Calculate payback period and/or \$ per CO<sub>2</sub>e reduced – Evaluate whether it is acceptable to you 計算投資回收期和/或每 CO<sub>2</sub>e 美元

# RENEWABLE ENERGY SOURCES 再生能源





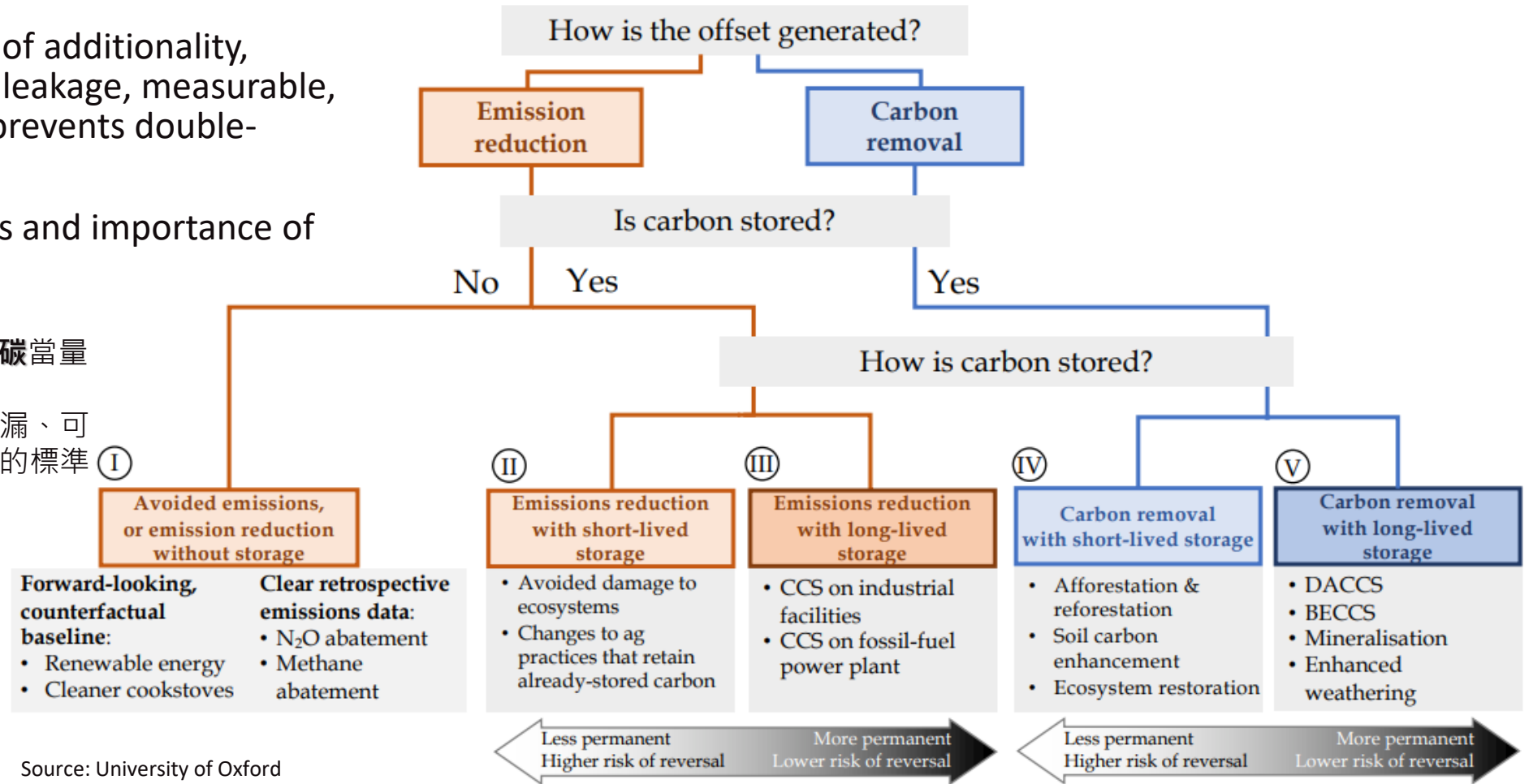
# CARBON CREDITS (OFFSETS) 碳信用額 ( 抵銷 )

- Each carbon credit represents **1 tCO<sub>2</sub>e reduction**
- Must meet the criteria of additionality, permanence, prevents leakage, measurable, legally attributable, & prevents double-counting
- Carbon credit platforms and importance of 'retirement'

每個碳信用額代表**減少 1 噸二氧化碳當量**

必須滿足額外性、永久性、防止洩漏、可測量、可合法歸屬並防止重複計算的標準 ①

碳信用平台與「退休」的重要性



Source: University of Oxford

# CARBON CAPTURE, UTILIZATION & STORAGE (CCUS)



- CCUS involves the **capture** of CO<sub>2</sub>, generally from **large point sources** like power generation or industrial facilities that use either fossil fuels or biomass as fuel. If not being used on-site, the captured CO<sub>2</sub> is **compressed and transported** by pipeline, ship, rail or truck to be used in a range of applications, or **injected into deep geological formations** such as depleted oil and gas reservoirs or saline aquifers.

Technology	Description
Bioenergy with carbon capture and storage (BECCS)	BECCS uses a <b>post-combustion carbon capture process</b> , where solvents isolate CO <sub>2</sub> from the flue gases produced when the biomass is combusted. The captured CO <sub>2</sub> is pressurised and turned into a liquid-like substance so it can then be transported by pipeline.
Direct air capture (DAC)	Two technological approaches are currently used to <b>capture CO<sub>2</sub> from the air</b> : solid and liquid DAC. <b>Solid DAC (S-DAC)</b> is based on solid adsorbents operating under a vacuum and medium temperature (80-120 °C). <b>Liquid DAC (L-DAC)</b> relies on an aqueous basic solution (such as potassium hydroxide).
Forest carbon sequestration	Forests sequester carbon by <b>capturing carbon dioxide from the atmosphere</b> and transforming it into biomass through photosynthesis. The contribution of forests to carbon cycles has to be evaluated taking also into account the use of harvested wood.



# 碳捕獲、利用和封存 ( CCUS )

- CCUS 涉及**捕獲**二氧化碳，通常來自**大型點源**，例如使用化石燃料或生物質作為燃料的發電或工業設施。如果不在現場使用，捕獲的二氧化碳將被**壓縮**並透過管道、船舶、鐵路或卡車**運輸**，以用於一系列應用，或**注入深層地質構造**，例如枯竭的油氣藏或鹹水層。

科技	描述
具有碳捕獲和儲存的生物能源 ( BECCS )	BECCS 採用 <b>燃燒後碳捕獲</b> 方式，其中溶劑將生物質燃燒時產生的煙氣中的二氧化碳分離出來。捕獲的二氧化碳被加壓並變成液體狀物質，然後可以通過管道運輸。
直接空氣捕獲 (DAC)	目前有兩種技術方法用於從 <b>空氣中捕獲二氧化碳</b> ：固體和液體 DAC。 <b>固體 DAC (S-DAC)</b> 是基於在真空和中溫 (80-120 °C) 下運行的固體吸附劑。 <b>液體 DAC (L-DAC)</b> 依賴鹼性水溶液 ( 例如氫氧化鉀 ) 。
森林碳截存	森林碳截存會透過捕獲 <b>大氣中的二氧化碳</b> 並透過光合作用將其轉化為生物質。評估森林對碳循環的貢獻時也必須考慮到採伐木材的使用。

# CARBON DISCLOSURE PROJECT (CDP) 碳資訊揭露項目 ( CDP )

CDP is the pioneer of environmental disclosure  
CDP是環境資訊公開的先驅



**740+** investors with over US\$136 trillion in assets requested companies disclose

740 多家資產超過 136 兆美元的投資者要求公司披露資訊



**330+** major buyers asked their suppliers to disclose

330+ 主要買家要求其供應商揭露



**23,000+** companies disclosed through CDP

透過 CDP 揭露的 23,000 多家公司



**1,100+** cities, states and regions disclosed through CDP

透過 CDP 揭露了 1,100 多個城市、州和地區

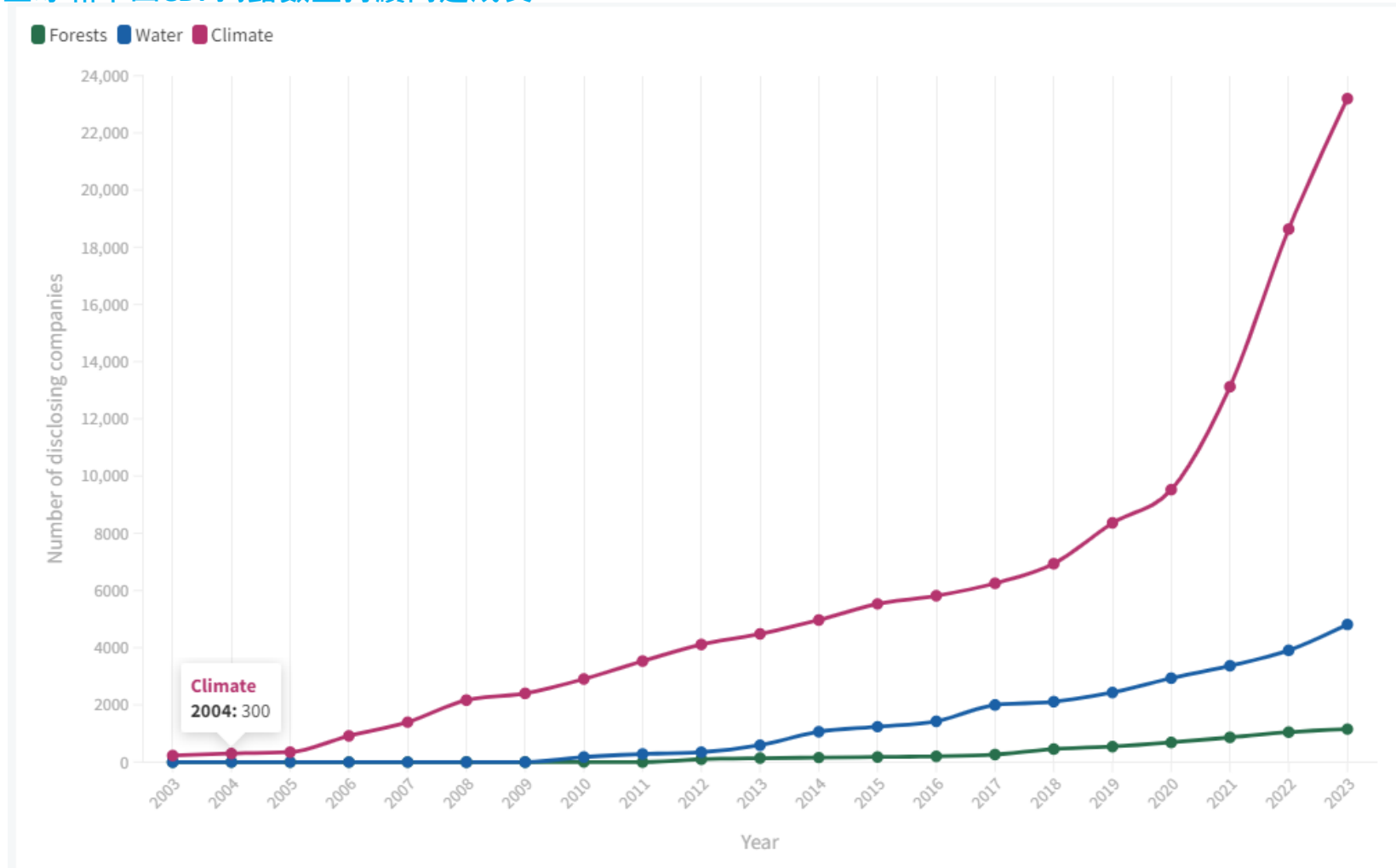


# CARBON DISCLOSURE PROJECT (CDP) 碳資訊揭露項目 ( CDP )



The number of global and Chinese CDP disclosures continues to grow at a high rate.

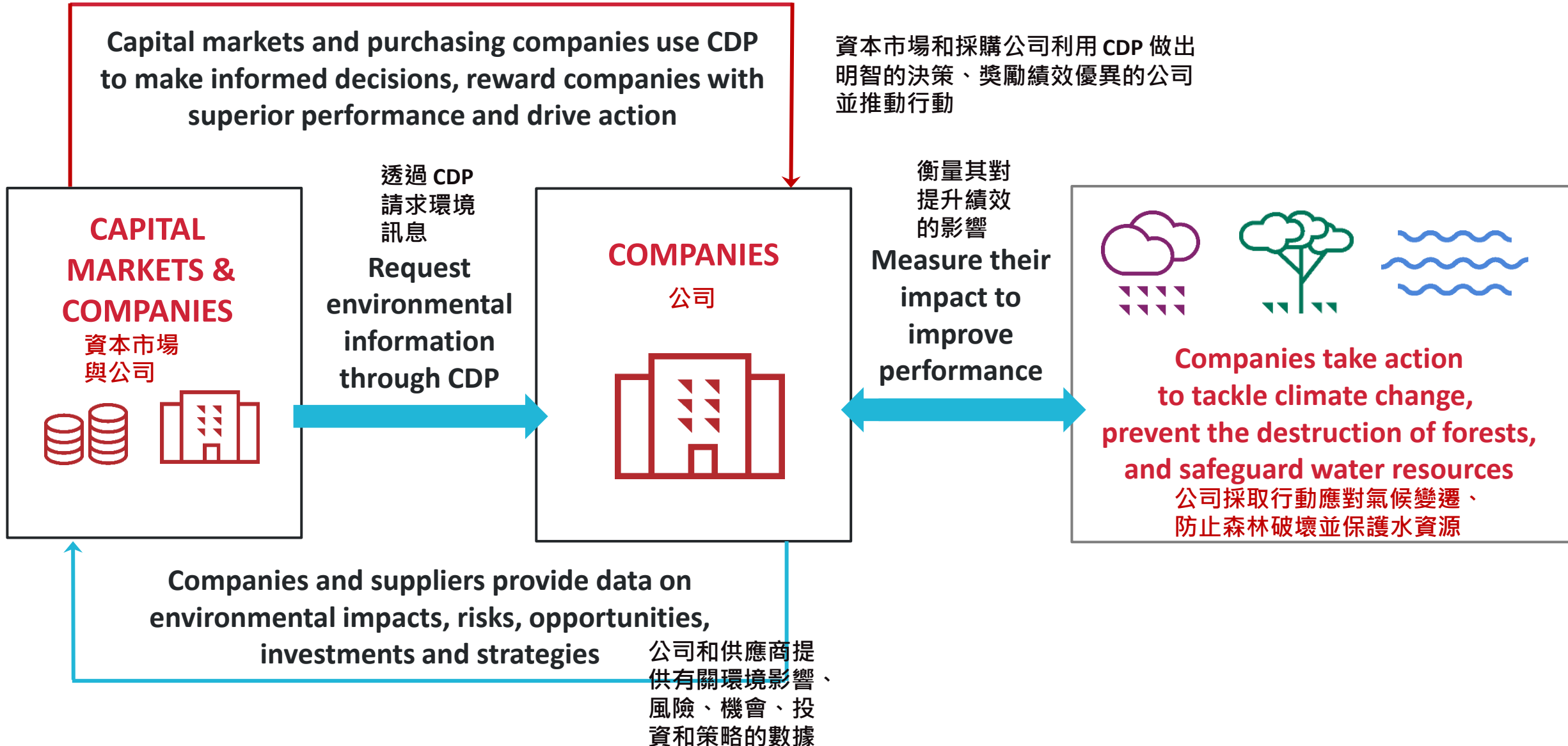
全球和中國CDP揭露數量持續高速成長。



- ▼ In 2022 **18,760** companies disclosed
- ▼ In 2023 **23,293** companies disclosed
- ▼ This is a **24%** growth rate from 2022

2022年 **18,760**家公司揭露  
2023年 **23,293**家公司揭露  
與 2022 年相比成長率為 **24%**

# CARBON DISCLOSURE PROJECT (CDP) 碳資訊揭露項目 ( CDP )



# CARBON DISCLOSURE PROJECT (CDP) 碳資訊揭露項目 ( CDP )



問卷與  
TCFD 一致  
管理 TCFD  
知識中心

- Questionnaire aligns with TCFD
- Manages the TCFD knowledge hub

納入 ISSB  
2024 年氣候相關揭露的問卷

incorporate ISSB's climate-related disclosure in 2024

- Founding member of SBTI
- Acts as a reporting mechanism for SBT

SBTI 創始成員  
作為 SBT 的報告機制

環境報告的趨同

Disclosure is the essential first step to drive environmental action, and CDP is the gold standard for corporate environmental reporting.

Drawing on the TCFD framework :governance, strategy, risk management, metrics and targets

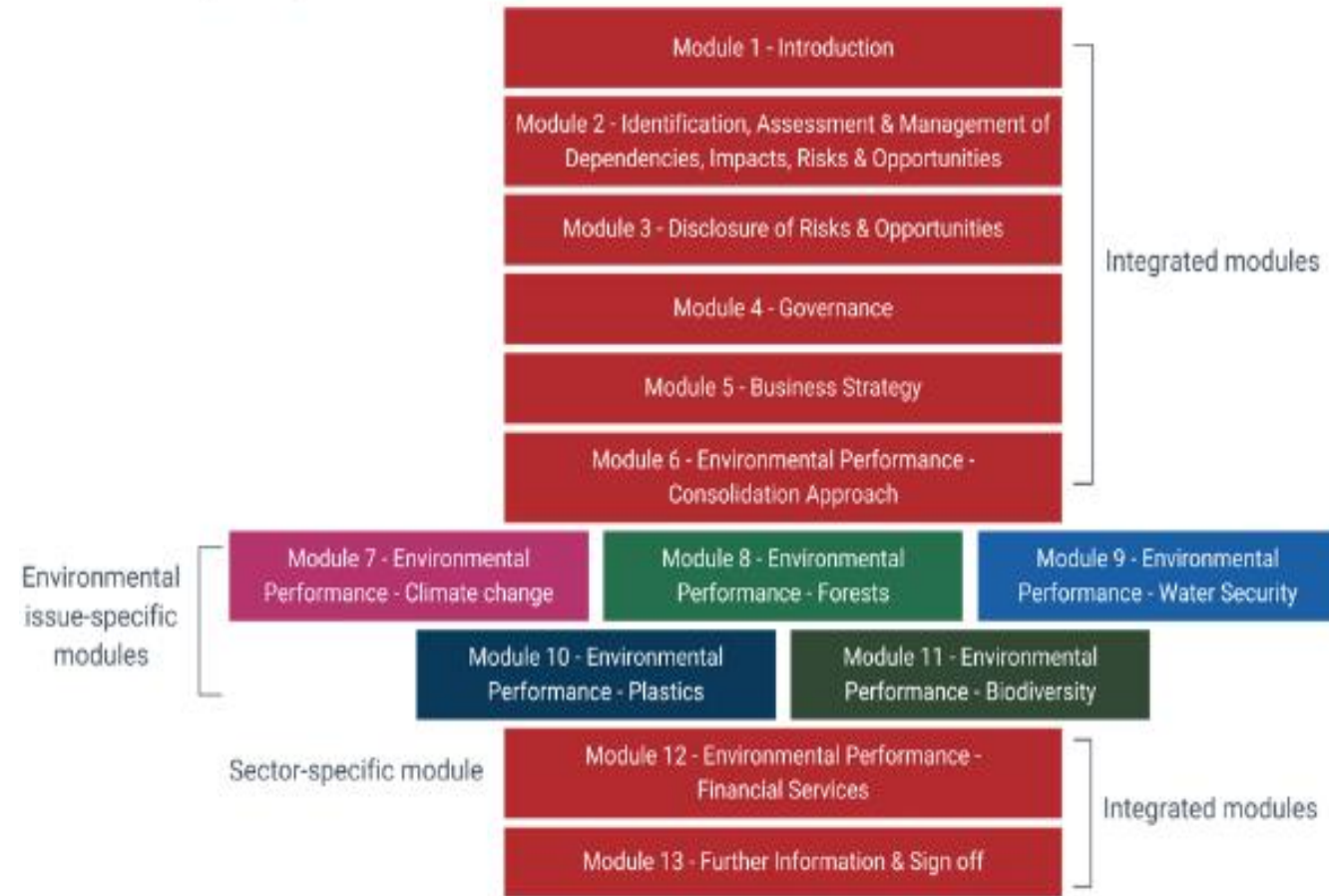
資訊揭露是推動環保行動的第一步，CDP 是企業環境報告的黃金標準。借鏡 TCFD 架構：治理、策略、風險管理、指標與目標

# KEY CHANGES TO CDP'S 2024 DISCLOSURE FRAMEWORK



## Questionnaire content

- CDP is **combining the three existing questionnaires into one CDP Corporate Questionnaire**
- Questions on all the themes that they have been requested to report on, **in one unified interface**, and will only need to submit one response.
- Companies will continue to be **scored separately** on climate change, water security, and forests. Neither plastics nor biodiversity questions will be scored in 2024.
- Supply chain questions**, presented to supply chain requested organizations, have also been spread throughout the questionnaire and are no longer in a standalone module.



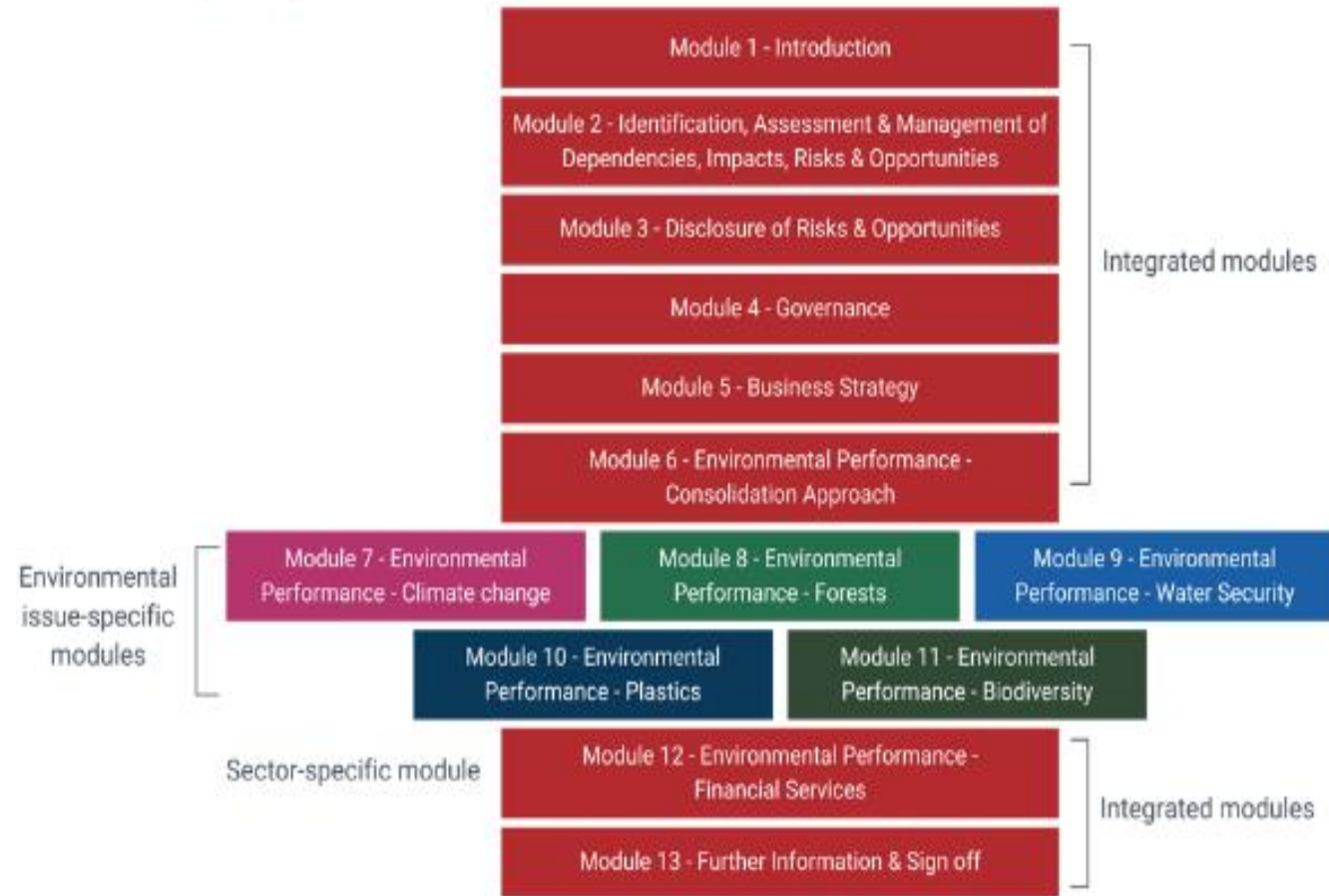
# KEY CHANGES TO CDP'S 2024 DISCLOSURE FRAMEWORK

## CDP 2024 年揭露框架的重大變化



### Questionnaire content 問卷內容

- CDP 正在將三份現有問卷合併為一份 CDP 公司問卷
- 對於要求他們報告的所有主題的問題，在一個統一的介面中，只需提交一份答案。
- 公司將繼續在氣候變遷、水安全和森林方面分別進行評分。到 2024 年，塑膠問題和生物多樣性問題都不會得分。
- 向供應鏈請求組織提出的**供應鏈問題**也已分散在整個問卷中，不再是獨立的模組。

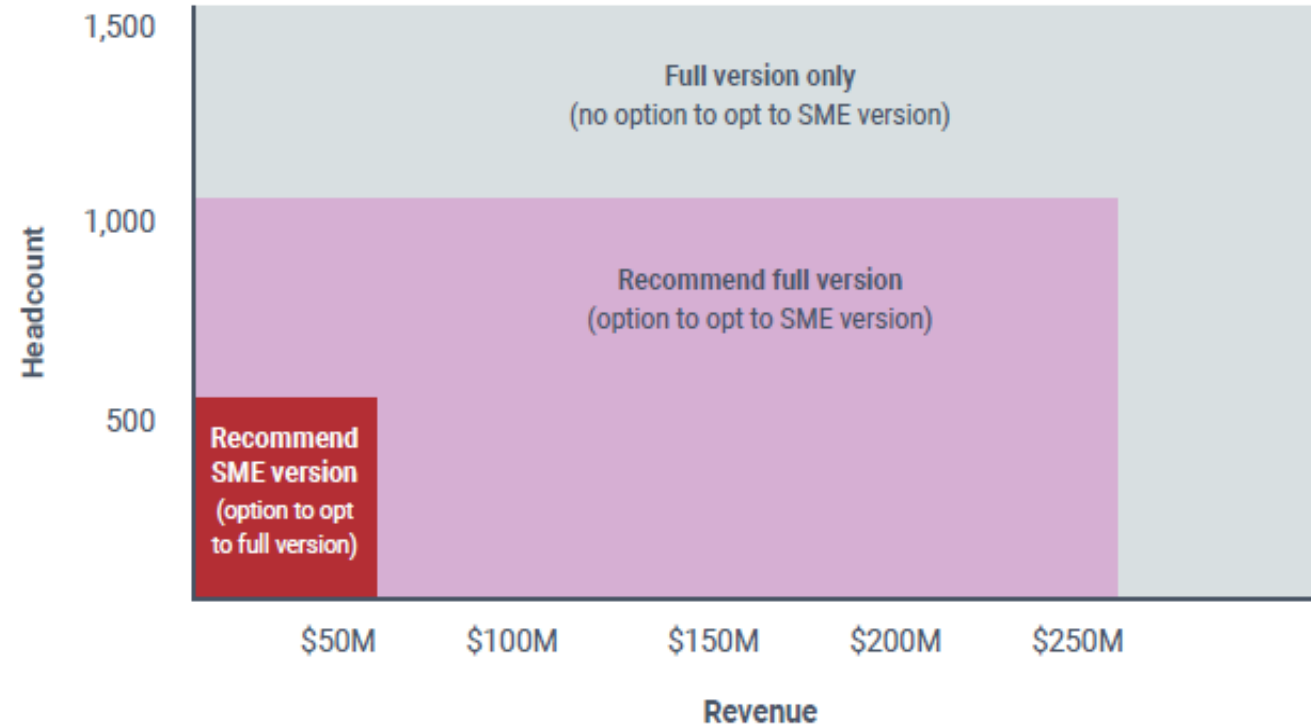


# KEY CHANGES TO CDP'S 2024 DISCLOSURE FRAMEWORK



## ▼ Newly added SME questionnaire

- ▼ **Replace the minimum version** and CDP Private Markets pilot SME Questionnaires
- ▼ Generally aligned datapoints with the **full questionnaire** (including module structure), but with **fewer datapoints, simplified question formats**, strengthened rationales, and enhanced question guidance to emphasize why datapoints included within the questionnaire are particularly important for SMEs to disclose on.
- ▼ **Only be scored on climate change.**
- ▼ Be open to **multiple requesting authorities** (e.g. CDP Supply Chain Members, private markets, banks).



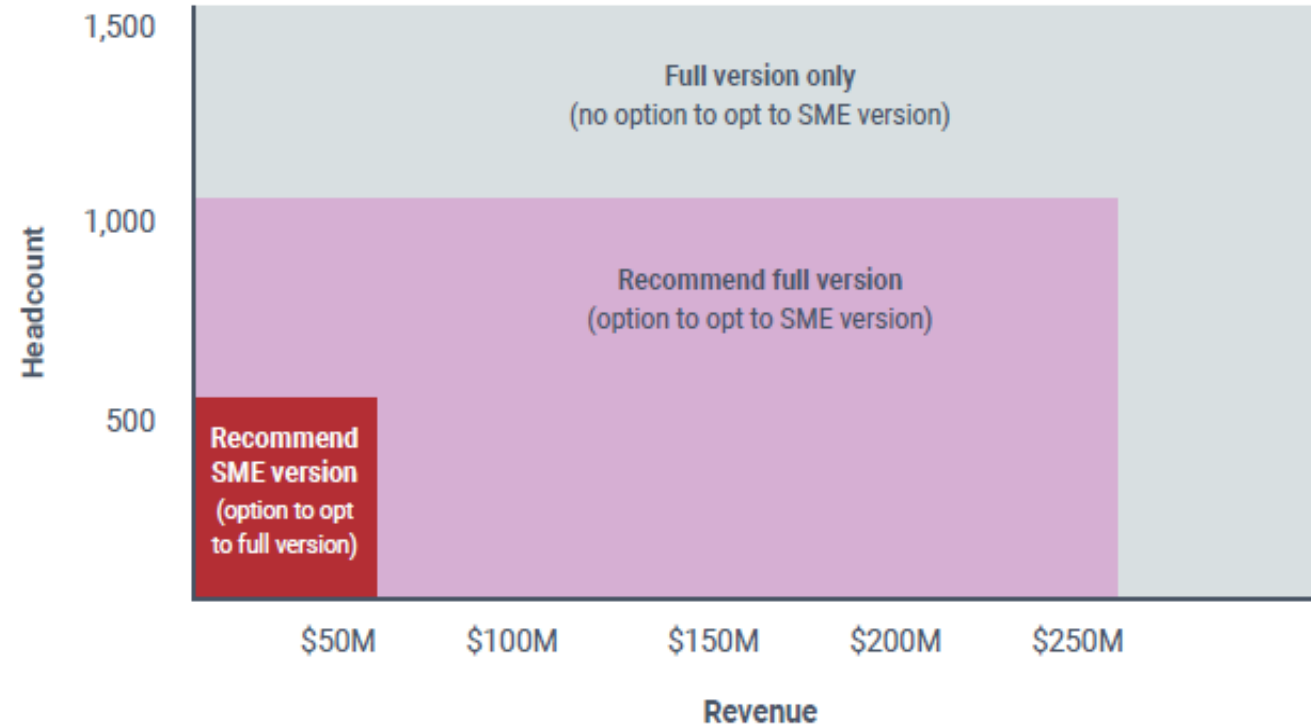
# KEY CHANGES TO CDP'S 2024 DISCLOSURE FRAMEWORK

## CDP 2024 年揭露框架的重大變化



### ▼ Newly added SME questionnaire 新增中小企業問卷

- ▼ 更換最低版本和 CDP 私募市場試點中小企業問卷
- ▼ 數據點總體上與完整的問卷（包括模組結構）一致，但數據點較少，問題格式簡化，理由強化，問題指導加強，以強調為什麼問卷中包含的數據點對於中小企業披露特別重要。
- ▼ 僅對氣候變遷進行評分。
- ▼ 對多個請求機構（例如 CDP 供應鏈成員、私人市場、銀行）持開放態度。



# CDP SCORE



- **Leadership (A score)**

Organizations must show **leadership**, disclosing action on climate change, deforestation or water security. They must demonstrate **best practice** in strategy and action to gain this score.

- **Management (B-/B score)**

The score indicates whether the company has taken specific actions to address and **manage environmental risks**. But it is not undertaking actions that mark it out as a leader in its field.

- **Awareness (C-/C score)**

The awareness score measures the **comprehensiveness** of a company's **evaluation** of how environmental issues intersect with its business, and how its operations affect people and ecosystems.

- **Disclosure (D-/D score)**

The **starting point** for organizations that want to demonstrate that they have begun their environmental journey.







# CDP SCORE - CDP評分

## • 領導力 ( A 分 )

組織必須發揮**領導作用**，揭露在氣候變遷、森林砍伐或水安全方面採取的行動。他們必須展示策略和行動的**最佳實踐**才能獲得這一分數。

## • 管理 ( B-/B 分數 )

此分數顯示公司是否採取了具體行動來應對和**管理環境風險**。但它並沒有採取使其成為該領域領導者的行動。

## • 意識 ( C-/C 分數 )

意識得分衡量公司對環境問題如何與其業務交叉以及其運作如何影響人類和生態系統的**評估的全面性**。

## • 揭露 ( D-/D 分數 )

對於想要證明他們已經開始環保之旅的組織來說，這是一個**起點**。

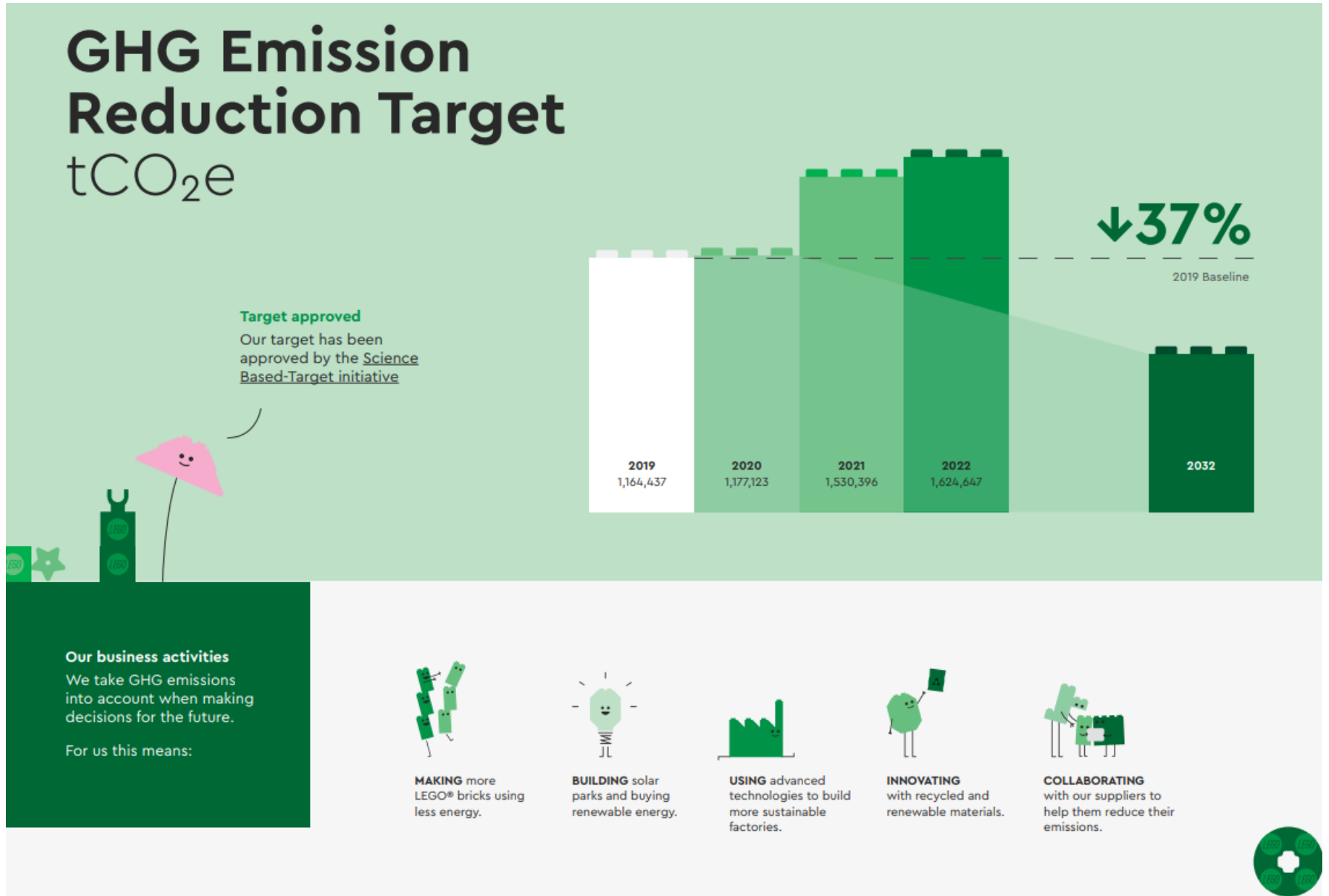


# CASE STUDY - LEGO



Lego quantified its base year GHG emission and set SBT-By 2032, reduce absolute emissions by 37%, compared to 2019 levels, and keep tracking its progress.

樂高量化了其基準年溫室氣體排放量，並設定了 SBT-到 2032 年，與 2019 年的水平相比，絕對排放量減少 37%，並持續追蹤其進展。



# CASE STUDY - LEGO




Lego quantified its base year GHG emission and set SBT-By 2032, reduce absolute emissions by 37%, compared to 2019 levels, and keep tracking its progress.

樂高量化了其基準年溫室氣體排放量，並設定了 SBT-到 2032 年，與 2019 年的水平相比，絕對排放量減少 37%，並持續追蹤其進展。

tCO <sub>2</sub> e <small>Tonnes of CO<sub>2</sub>-equivalent</small>	2021	2022
Scope 1	27,926	23,153
Scope 2	809	1
Scope 3	1,501,661	1,601,494
<b>Total</b>	<b>1,530,396</b>	<b>1,624,647</b>

**Note**  
Scope 2 emissions are reported as market-based to reflect our actions to balance our energy use with renewable energy.



# CASE STUDY - LEGO

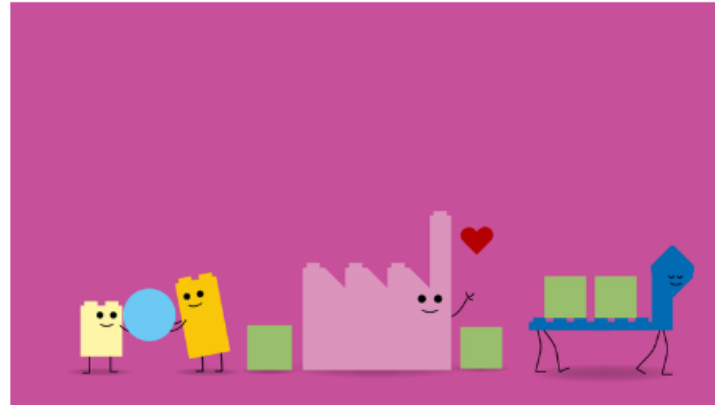
## Reducing GHG Emissions in our operations



LEGO sets their GHG emission reduction plans **within their own operations** and in their supply chain.

樂高在**自己的營運和供應鏈**中製定了**溫室氣體減排計畫**。

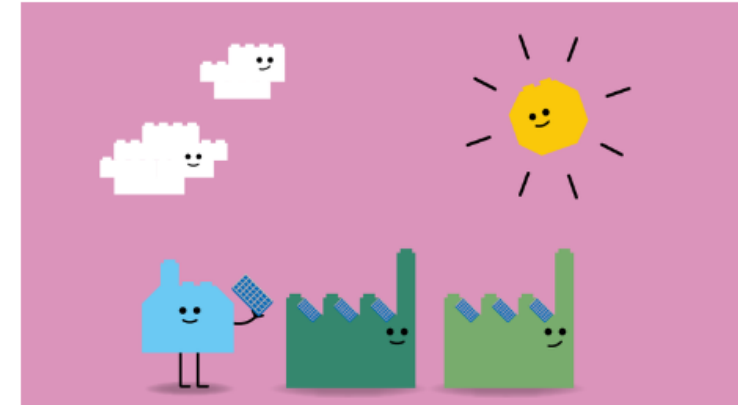
We plan to make our operations in factories, offices and stores more efficient so that we use less energy and reduce our GHG emissions when producing LEGO® bricks. The long-term aim is to run carbon-neutral operations.



### In our factories

To reduce the environmental footprint from our factories, we are becoming more efficient by using as little energy as possible when we make and package LEGO bricks.

This means investing in new machinery, installing smart systems, changing lighting systems, and optimizing cooling and ventilation systems at our sites.



### Adding more renewables

We are investing in renewable energy sources to power our factories, and we want to support the development of renewable energy in all regions where we operate.

In 2021, we installed 20,000+ solar panels at our factories in China, Hungary and Mexico. At our new factories in Vietnam and the United States, we will install solar panels on roofs and build solar parks with local partners.

# CASE STUDY - LEGO

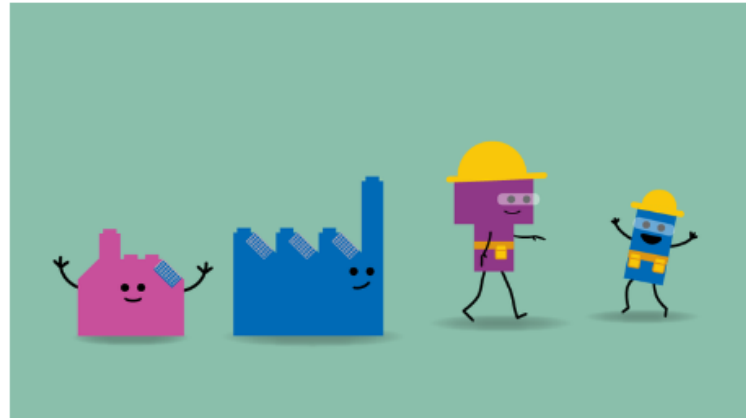
Lego sets their GHG emission reduction plans **within their own operations** and in their supply chain.

樂高在自己的營運和供應鏈中製定了溫室氣體減排計畫。



## Reducing GHG Emissions in our operations

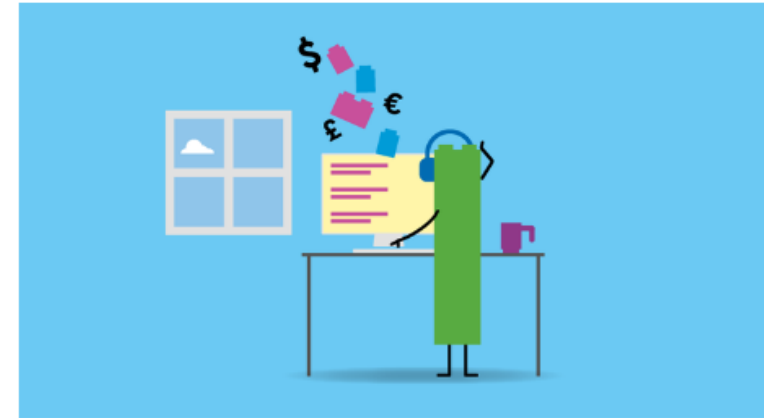
We plan to make our operations in factories, offices and stores more efficient so that we use less energy and reduce our GHG emissions when producing LEGO® bricks. The long-term aim is to run carbon-neutral operations.



### Setting our standards high

When we plan and construct new buildings, we aim to meet high environmental building standards. For example, the new LEGO Campus in Billund has Gold-level LEED certification.

Our new factories in Vietnam and the US will be designed to have the lowest possible environmental footprint and be run carbon-neutral.



### New decision-making tools

We are introducing new ways of working to help us make more sustainable investments. In 2022, we introduced a financial tool called a shadow carbon price, which will encourage more investments in low-carbon projects.

A shadow carbon price places a monetary value on carbon emissions linked to a project. By including it in our calculations, we can understand what the most sustainable options are.

# CASE STUDY - LEGO

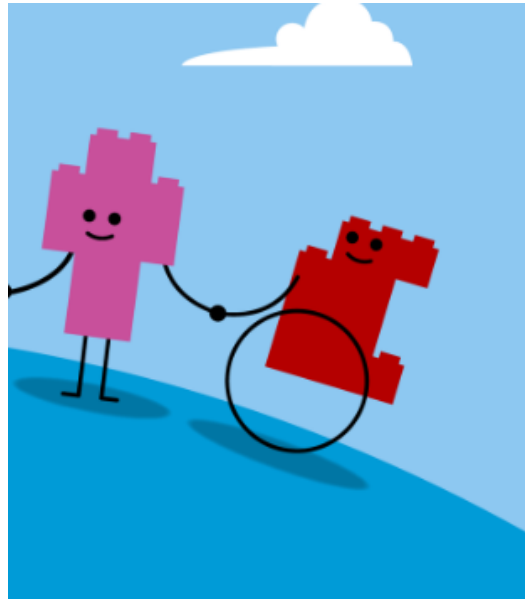


Lego sets their GHG emission reduction plans within their own operations and **in their supply chain.**

樂高在自己的營運和供應鏈中製定了溫室氣體減排計畫。

## Reducing GHG emissions in our supply chain

Most of our GHG emissions can be found in our supply chain, which is why we also work with partners to help them reduce their emissions. This includes; but is not limited to; GHG emissions from suppliers that manufacture and deliver raw materials, make our machines and transport LEGO® sets around the world.



### Engage-to-Reduce

In 2014, we launched our Engage-to-Reduce programme where we work with our suppliers to minimise GHG emissions from our entire supply chain.

The programme has since grown significantly, and in 2022, we increased the number of suppliers asked to complete the CDP climate questionnaire by more than 60% to 138 of our most carbon-intensive suppliers.

We want to better understand the impact our supply chain has on the climate, as well as water and forests. The goal is to work more closely with these suppliers and ultimately lower the environmental impacts year on year.

# CASE STUDY - LEGO

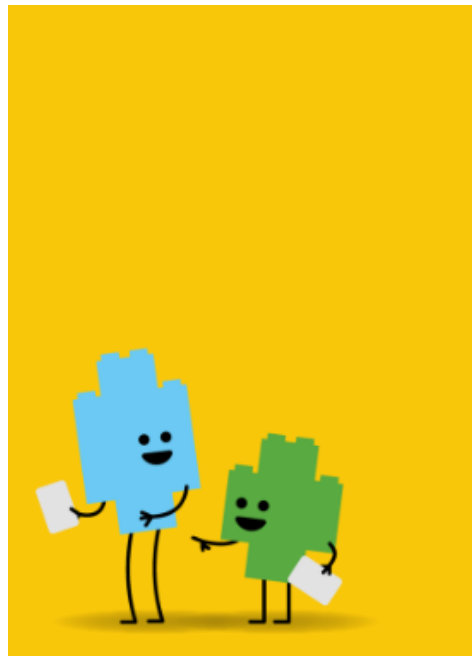


Lego sets their GHG emission reduction plans within their own operations and **in their supply chain.**

樂高在自己的營運和供應鏈中製定了溫室氣體減排計畫。

## Reducing GHG emissions in our supply chain

Most of our GHG emissions can be found in our supply chain, which is why we also work with partners to help them reduce their emissions. This includes; but is not limited to; GHG emissions from suppliers that manufacture and deliver raw materials, make our machines and transport LEGO® sets around the world.



### Choosing our suppliers

We are also changing the way we select and work with suppliers.

As we start making changes to how we make LEGO bricks and what materials we make them from, we need to ensure our partners can support us on this transition. We review social and environmental criteria when choosing new suppliers, including whether they monitor and report on their GHG emissions.

To ensure that we are working towards the same goals as our suppliers, both new and old, we have also introduced sustainability into our supplier review process and require our highest-impact suppliers to participate in our Engage-to-Reduce program.

# CASE STUDY - LEGO



Lego sets their GHG emission reduction plans within their own operations and in their supply chain.

樂高在自己的營運和供應鏈中製定了溫室氣體減排計畫。

## Reducing GHG emissions in our supply chain

Most of our GHG emissions can be found in our supply chain, which is why we also work with partners to help them reduce their emissions. This includes; but is not limited to; GHG emissions from suppliers that manufacture and deliver raw materials, make our machines and transport LEGO® sets around the world.

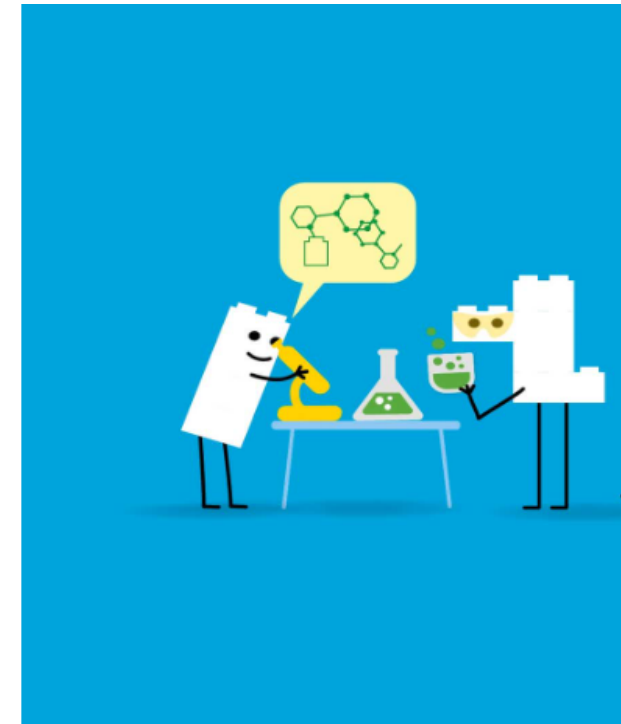
### Finding new materials

Reducing CO<sub>2</sub> in our supply chain is also about finding more sustainable materials for our products and packaging, without compromising on quality or safety. This means we need to innovate existing materials that are safe and strong enough to be passed down through generations.

Over the last few years we've tested more than 300 different materials, including recycled plastic bottles, and bio-polyethylene (bio-PE) – a soft, durable and flexible plastic derived from certified Brazilian sugarcane, in our ambition to create new materials that are not only more sustainable, but that also reduce our carbon emissions.

We're also significantly increasing investment in certified recycled and renewable raw materials using the mass-balance approach, as well as exploring plastics made from alternative sources such as e-methanol for plastic production.

[Read more](#)







# Questions & Answers (Q&A Section)

**intertek**

**Total Quality. Assured.**

# DISCLAIMER



LEGAL NOTICE: This presentation has been prepared specifically for (the "Recipient").

Confidentiality: The information in this presentation, including the description of Intertek's service offerings, business model and practices, constitutes valuable, proprietary and strictly confidential intellectual property and/or information of the Intertek Group (the "Information"). This presentation and the Information must not be copied or reproduced, or disclosed or provided to any person other than the Recipient, in whole or in part, without the prior written consent of Intertek.

Intellectual property: The Intertek name and logo are trade marks which are owned by the Intertek Group. The copyright to the Information and this presentation is owned exclusively by the Intertek Group. Receipt of this presentation and the Information does not give the Recipient or any third party any proprietary or ownership right to, or interest in, the Information or any trade mark or copyright material owned by the Intertek Group. All rights (including copyrights) and interest to this presentation and the Information are reserved to the Intertek Group. All rights are reserved.