Training Workshop:

Analysing ESG Solutions for Sustainable Practices: Bridging Sustainability and Corporate Finance

Instructor:

Ir Sophia Lau
Director, ASEL Environmental Consulting Company Limited

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ASEL Environmental Consulting Company Limited

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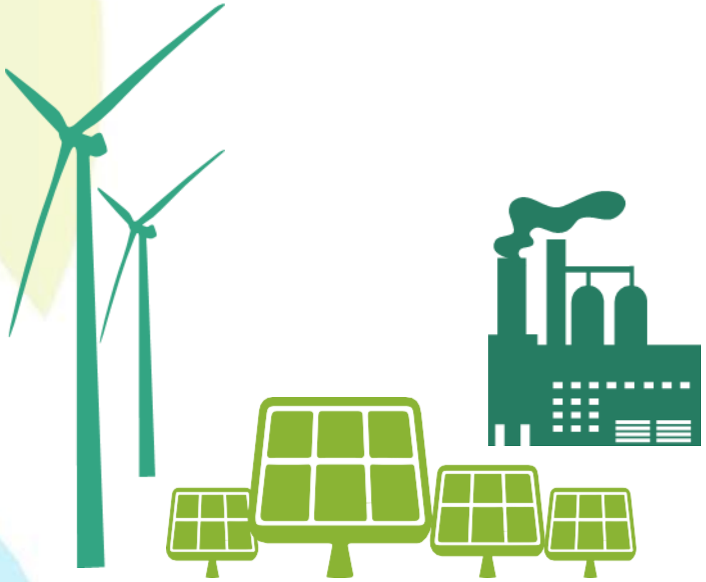
Analysing ESG Solutions for Sustainable Practices: Bridging Sustainability and Corporate Finance

Ir Sophia Lau

Director, ASEL Environmental Consulting Company Limited

sophia.lau@asel.com.hk

14th August, 2026



Course Rundown Today:

Time	Contents
09:15 – 10:30	• ESG Fundamentals, roles in shaping corporate image and consumer behaviour • Identification of key metrics and stakeholder engagement strategies
10:30 – 10:45	Break
10:45 – 12:00	Sharing on Integration of ESG into business decision making (Guest speaker)
12:00 – 13:30	Lunch Break
13:30 – 14:30	Types of ESG related risks and opportunities
14:30 – 14:45	Break
14:45 – 15:45	Introduction of global and regional megatrends, explore finance-oriented examples (Guest Speaker)
15:45 – 16:30	Discussion
16:30 – 17:00	Round up

Module 1 - ESG Fundamentals

What is ESG?

- It is used mainly, but not exclusively, in capital markets to describe and assess how companies address three core areas:

Environmental record, Social engagement, and Governance practices.

Common Examples of ESG Issues

E ENVIRONMENTAL

Climate change, greenhouse gas emissions (GHG), deforestation, biodiversity, pollution, water, waste, extended producer responsibility, etc.

S SOCIAL

Customer relations, employee relations, labor, human rights, occupational health and safety, community relations, supply chains, etc.

G GOVERNANCE

Board management practices, succession planning, compensation, diversity, equity and inclusion, regulatory compliance, corruption, fraud, data hygiene and security, etc.

Sustainalytics. (n.d.). *Getting started with ESG: What every company needs to know*. https://connect.sustainalytics.com/scs-ebook-esg-getting-started-guide-for-corporations

Do you know the differences…?

What is CSR?

- Corporate Social Responsibility have some similarities to ESG, but differ in specific ways.
- CSR initiatives are **voluntary** and tend to focus on improving a company's **relationships with external parties e.g. nearby community**
- ESG programs are generally implemented as a broader corporate strategy to **address investor or regulatory demands.**
- CSR managers oversee corporate philanthropy or partnerships with community groups. CSR drove standards like ISO 26000, the guidance on social responsibility.

Sustainalytics. (n.d.). *Getting started with ESG: What every company needs to know.* https://connect.sustainalytics.com/scs-ebook-esg-getting-started-guide-for-corporations

ISO 26000: Guidance on Social Responsibility

Definition: International standard providing guidance on how organizations operate responsibly and contribute to sustainable development.

- **Purpose:** Helps integrate **ethical, transparent, and socially responsible practices** into strategy and daily operations.
- **Scope:** Applies to **all types of organizations** — public, private, and non-profit — regardless of size or location.
- **Core Subjects:**
  - Organizational governance
  - Human rights
  - Labour practices
  - Environment
  - Fair operating practices
  - Consumer issues
  - Community involvement & development

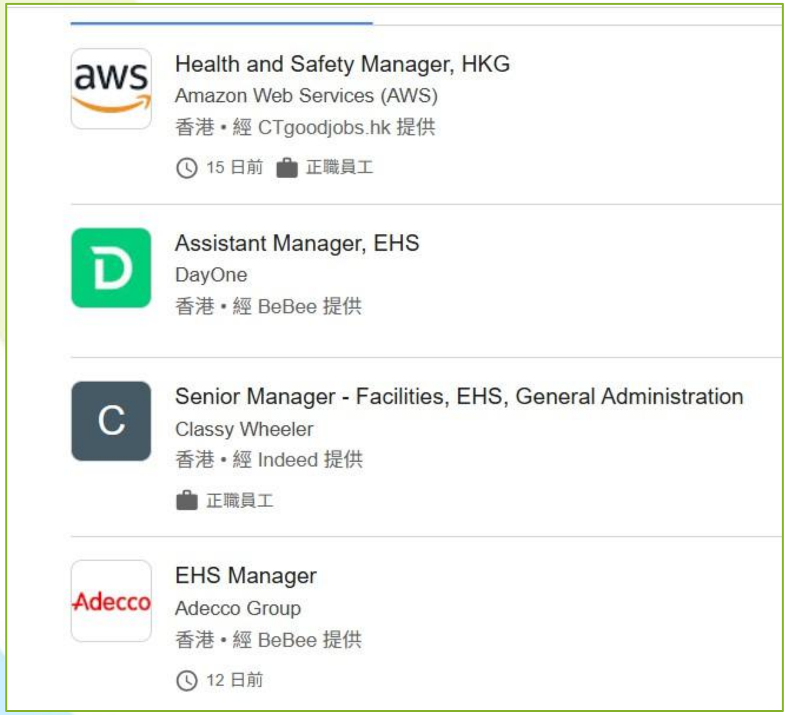
Functions:

- Strengthens stakeholder trust
- Enhances corporate reputation
- Supports ESG and SDG alignment
- Improves long-term sustainability performance

What is EHS?

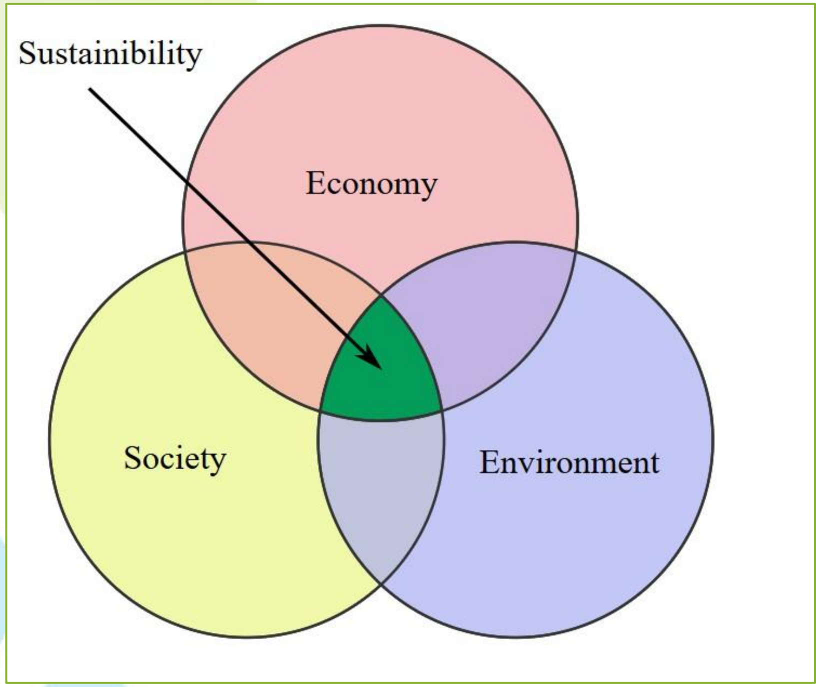
- Environmental Health and Safety, refers to the **practical aspects of protecting the environment, health, and safety**, such as compliance with environmental and occupational health and safety requirements.

- The relevant international standards are ISO 14001:2015 for environmental management and ISO 45001:2018 for occupational health and safety management.



What is Sustainability / Sustainable Development

- Sustainable development is achieved by balancing the ***environment, society and the economy*** to meet the needs of the present without compromising the ability of future generations to meet their needs.



What is Sustainability vs ESG (Reporting)

- Inside-out and outside-in perspectives are complementary. Both are material to the company.
- The impacts of the company on the environment and society may over time become material in investors' eyes and require disclosure in the company's financials.
- Further, the impacts of the environment and society on the company may become material in investors' eyes and also require disclosure in the company's financial statements. Materiality, like beauty, is in the eye of the beholder.

The impacts of the company on the environment and society

the impacts of the environment and society on the company

https://sustainabilityadvantage.com/2022/02/22/sustainability-vs-esg/

https://sdgs.un.org/goals

Sustainable Development Goals 17

In-class exercise 1

In groups, try to categorize the 17 SDGs under Environment, Social and Governance, discuss and explain your answers.

Module 2 - ESG related risks and opportunities

ESG risks and opportunities refer to environmental, social, and governance factors that can affect a company's financial performance, reputation, and long-term value. They are integral to sustainable business strategy and investment decision-making.

ESG-Related Risks Examples

Environmental	Social	Governance
Climate change,	Labour disputes	Corruption
resource scarcity, pollution	Health & safety failures	Weak board oversight
extreme weather	human-rights violations	Poor transparency non-compliance
carbon pricing	community opposition	

Impact: → Financial loss, reputational damage, regulatory penalties, and reduced investor confidence.

Types of ESG related risks

Types of ESG risks:

1. **Transition risk:** carbon pricing, regulation, technology shifts
2. **Physical risk:** floods, heatwaves, supply chain disruption
3. **Social risk:** labour standards, community conflict
4. **Governance risk:** corruption, board oversight failures

1. Transition risk

Definition (TCFD / ISSB)

- Risks arising from the **policy, legal, technology, and market changes** needed to transition to a **low-carbon economy**.
- These changes can increase costs, reduce asset values, or make business models obsolete.

Examples

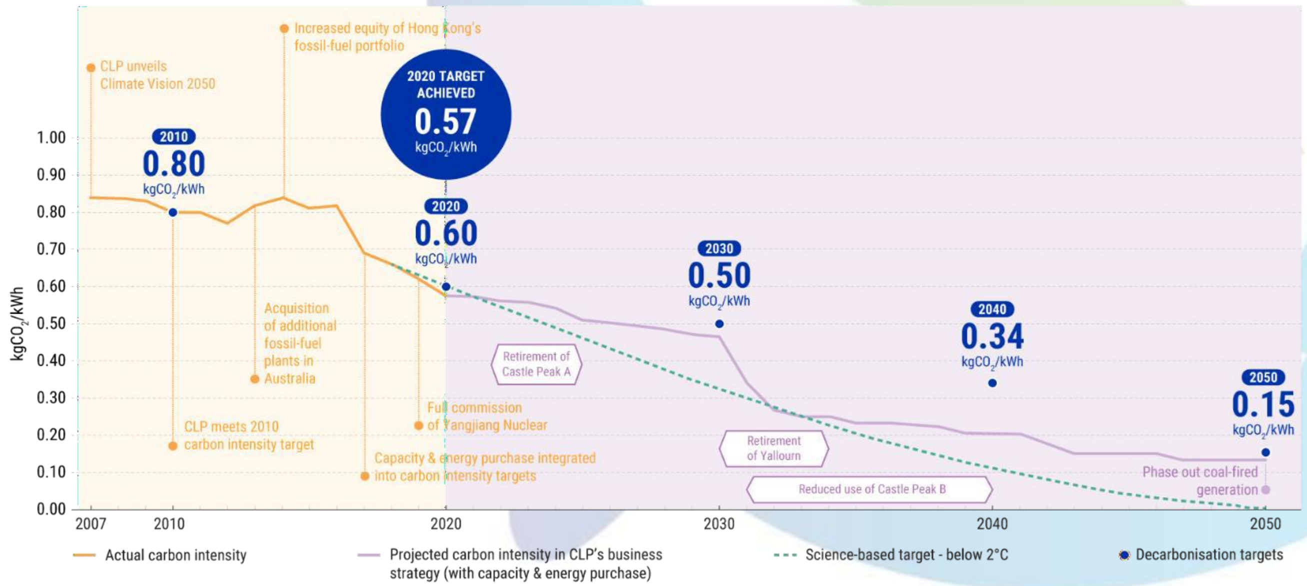
- Carbon pricing increases operating costs
- Stricter emissions regulations
- Market shift toward low-carbon products
- Technology disruption (e.g. EV replacing ICE vehicles)

Hong Kong Example

- CLP’s coal assets face transition risk due to government policy and decarbonization roadmap → capital shifted to renewables.

Climate Targets of Hong Kong

DECARBONISATION STRATEGIES •



Note: The plant retirement timeframes are indicative only.

Medium-to-long-term decarbonisation targets

Before 2035 — ↓50% **Total carbon emissions** Compared with 2005 level

Before 2050 — 香港邁向碳中和 Carbon Neutral@HK

Four decarbonisation strategies

Net-zero Electricity Generation

Energy Saving and Green Buildings

Green Transport

Waste Reduction

2. Physical Risks

Definition (TCFD / ISSB)

- Risks from **acute** (extreme weather events) and **chronic** (long-term climate shifts) physical impacts of climate change.

Examples

- Flooding, typhoons, heatwaves
- Sea-level rise affecting coastal infrastructure
- Supply chain disruption due to extreme weather

Hong Kong Example

- Airport Authority Hong Kong assessed sea-level rise and storm surge risks for the Third Runway System → elevated runway design.

PHYSICAL RISKS

HEAT WAVE

Heatwaves adversely impact human health and wellbeing. The heatwave definition used here currently occurs in around 35% of years.

MAJOR HEAT WAVE

The major heatwave definition used here currently occurs in around 5% of years.

RIVER FLOOD

River flooding causes direct and indirect losses to health, livelihoods, and economic assets. The flooding defined here currently occurs in 2% of years.

HYDROLOGICAL DROUGHT

Water resource droughts affect supplies of water to people and industry. The drought defined here currently occurs in around 6% of years.

AGRICULTURAL DROUGHT

Agricultural droughts affect crop yields, farmer livelihoods, and food security. The drought defined here currently occurs in around 10%-12% of years.

HEAT STRESS FOR MAIZE

High temperatures at critical points in the growing season can adversely affect crop yields. The current chance varies considerably.

GROWTH DURATION

Reduction in time to crop maturity due to higher temperatures would result in lower yields.

https://www.climateworks.org/report/framework-costs-of-climate-action/

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3. Social Risks

Definition (ISSB / HKEX / IFC Performance Standards)

- Risks arising from **labour practices**, **community impacts**, **human rights issues**, and **social licence to operate**. Poor social performance can lead to project delays, regulatory penalties, reputational damage, and loss of market access.

Examples

- Labour disputes
- Community opposition to projects
- Human rights violations in supply chains
- Health & safety failures

Hong Kong Example

- MTR's community engagement and safety programmes reduce social risk for new line construction.

Throughout 2024-2025, the eight core elements of CSS and RMoCs have been published, with engaging roadshows and workshops conducted across different business locations, including Hong Kong, Australia, Beijing, Hangzhou, Shenzhen, Sweden and the UK.

4. Governance Risk

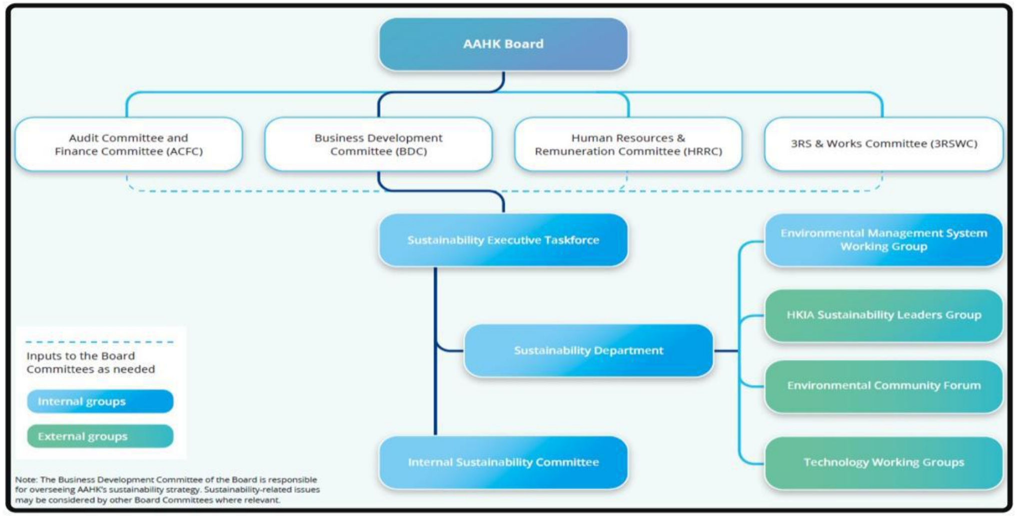
Hong Kong Exchanges and Clearing (HKEX) requires board-level involvement in Environmental, Social, and Governance (ESG) matters

Definition (ISSB / HKEX / OECD Corporate Governance Principles)

- Risks arising from **weak governance structures**, including poor oversight, lack of transparency, unethical behaviour, or ineffective board management of ESG issues

Examples

- Corruption or fraud
- Weak board oversight of climate risks
- Inadequate ESG policies
- Poor disclosure quality → investor distrust



Hong Kong Example

- Different company required CEO plus boards level representatives to oversee ESG matters; weak governance can lead to regulatory penalties and investor withdrawal.

Introduction to ESG-Related Opportunities

ESG opportunities are **value-creating advantages** that arise when companies proactively address environmental, social, and governance issues. They strengthen competitiveness, reduce long-term risk, and open new markets.

Key ESG Opportunities

- **Innovation & New Markets** Development of low-carbon technologies, green buildings, sustainable aviation, renewable energy solutions.
- **Operational Efficiency** Reduced energy use, waste, and resource consumption → lower operating costs.
- **Access to Capital** Eligibility for green bonds, sustainability-linked loans, ESG-weighted investment portfolios.

Types of ESG Related Opportunities

- **Brand & Reputation Enhancement** Strong ESG performance increases customer loyalty, investor confidence, and stakeholder trust.
- **Talent Attraction & Retention** Companies with strong ESG commitments attract skilled employees and reduce turnover.
- **Resilience & Long-Term Value Creation** ESG integration improves risk management and strengthens business continuity.

ESG creates new investment opportunities:

- Renewable energy
- Circular economy
- Green buildings
- Sustainable finance products
- Low-carbon logistics

ESG-aligned projects often show:

- Lower operating costs
- Higher efficiency
- Stronger stakeholder support
- Better long-term resilience

Module 3 - ESG Shape Corporate Image and Customer Behaviour

ESG performance signals a company's **values, ethics, and long-term vision**. It shapes how stakeholders — investors, employees, regulators, and the public — perceive the brand.

Consumers increasingly make purchasing decisions based on a company's **environmental and social impact**, not just price or quality.

- **Ethical Consumption:** Shoppers prefer brands that align with their values (e.g., cruelty-free, low-carbon, fair trade).
- **Transparency Demand:** Consumers expect clear ESG disclosures and traceable supply chains.
- **Loyalty and Advocacy:** ESG-aligned brands enjoy stronger customer loyalty and word-of-mouth support.
- **Boycotts and Backlash:** Poor ESG performance or greenwashing can trigger consumer rejection.

ESG Shape Corporate Image

A. **Strengthen Brand & Reputation –** positive impacts to the environmental and society in turn strengthen engagement of customers, employees and other stakeholders

B. Improve Trust & Stakeholder Relations- transparency improve trust among stakeholders and strengthen their license to operate

C. Demonstrate Leadership & Innovation – ESG and SDGs present an opportunity for business-led solutions and technologies to address the world's biggest sustainable development challenges

D. Use a Common Language for Sustainability – ESG requirements define a common framework and language that help companies communicate more consistently and effectively with stakeholders

ESG Influences Consumer Behaviour

A. Consumers Reward Sustainable Companies

- Around the world, consumers are increasingly basing their purchasing decisions on their perception of a company's sustainability performance.

B. Younger Generations Prefer Responsible Brands

- Younger generations in particular value responsible and inclusive business practices.

C. Sustainability Drives Market Growth

- Global sustainable development challenges represent market opportunities for companies able to deliver innovative solutions.

D. ESG Helps Stabilize Markets & Societies

- Business cannot succeed in societies that fail… Investing in the SDGs supports pillars of business success.
- This directly influences consumer confidence and long-term brand loyalty.

Examples:

- A 2024 Hong Kong Consumer Council survey found that 91% of **respondents** are **willing to pay a premium** (up to 7% more) for **eco-friendly products** or services.
- A 2024 HKTDC and PwC Hong Kong report revealed that 68% of B2B decision-makers **prioritise suppliers with clear ESG commitments**, up from 52% in 2022.

https://www.hkt-enterprise.com/en/cases-trends/4Benefits-of-Embracing-ESG-into-Business-in-HK

Module 4 - Key ESG Metrics used in financial decisions

ESG metrics are **quantitative and qualitative indicators** used to measure a company's environmental, social, and governance performance. They help investors and boards evaluate **financial risks, opportunities, and long-term enterprise value**.

Examples include:

- Carbon emissions (Scope 1, 2, 3)
- Energy intensity
- Water use
- Health & safety rates
- Diversity metrics
- Board governance indicators

Category	Metric	Description / Use in Finance	Official Source (in brackets)
Climate & Carbon	**Scope 1, 2, 3 Emissions**	Measures total greenhouse gas emissions; used for carbon pricing, transition risk, and valuation adjustments.	(ISSB IFRS S2; GHG Protocol)
	Carbon Intensity	Emissions per unit of revenue/output; used to compare efficiency and regulatory exposure.	(ISSB IFRS S2)
	Science-Based Targets	Long-term decarbonisation commitments; signals risk management quality.	(SBTi; ISSB IFRS S2)
Energy, Water & Resources	**Energy Consumption / Intensity**	Indicates operational efficiency and cost exposure.	(GRI 302; ISSB IFRS S1)
	Renewable Energy Use (%)	Shows transition readiness and reduces long-term risk.	(GRI 302; ISSB IFRS S2)
	Waste Diversion / Circularity Metrics	Measures recycling, reuse, and waste reduction performance.	(GRI 306; SDG Compass)
Social & Human Capital	**Lost-Time Injury Rate (LTIR)**	Key safety metric affecting insurance costs and operational risk.	(GRI 403; IFC Performance Standards)
	Employee Turnover Rate	Indicates workforce stability and productivity.	(GRI 401; ISSB IFRS S1)
	Diversity & Inclusion Metrics	Signals governance quality and reduces reputational risk.	(GRI 405; HKEX ESG Guide)
Governance & Transparency	**Board Oversight of ESG/Climate**	Strong governance reduces risk and improves investor confidence.	(HKEX Corporate Governance Code; ISSB IFRS S1)
	Anti-Corruption Metrics	Critical for compliance and reputational protection.	(GRI 205; OECD Governance Principles)
	ESG Disclosure Quality & Assurance	High-quality reporting reduces information asymmetry.	(ISSB IFRS S1; EU CSRD/ESRS)
	TCFD-Aligned Risk Management	Ensures climate risks are embedded into enterprise risk management.	(TCFD Recommendations)

Case Study

AAHK
Sustainability Report
2017/18

Search | Your Feedback | Download PDF | A | EN

Chairman & CEO Messages | Our Approach | Our People | World-class Gateway | Our Future Airport | HK People's Airport | About This Report

Previous: GRI Content Index — You are in: Home → About This Report → Performance Data — Next: Verification Statement

Economic Performance[1]

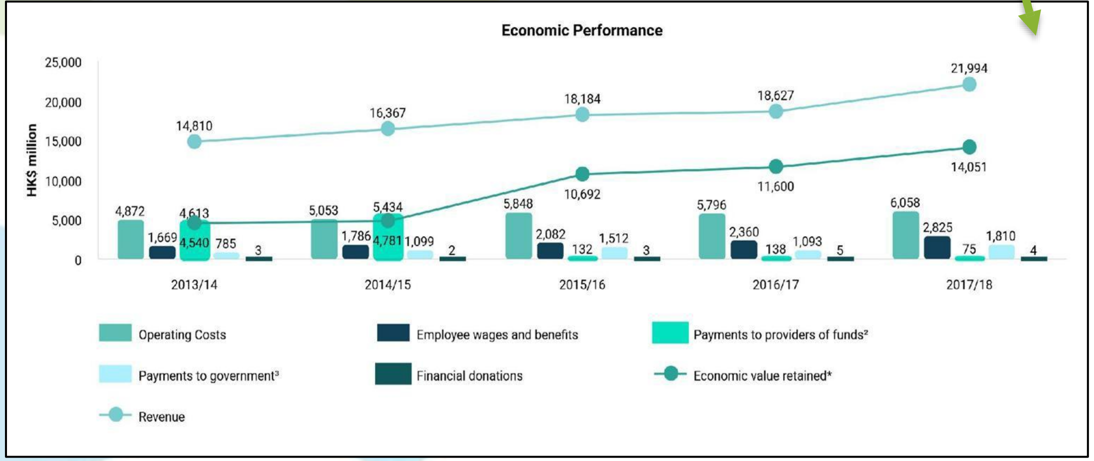
Download Image | Table | Chart

Previous: GRI Content Index — You are in: Home > About This Report > Performance Data — Next: Verification Statement

Economic Performance[1]

Table | Chart

	Unit	2013/14	2014/15	2015/16	2016/17	2017/18
Economic value generated						
Revenue	HK$ million	14,810	16,367	18,184	18,627	21,994
Economic value distribution						
Operating costs	HK$ million	4,872	5,053	5,848	5,796	6,058
Employee wages and benefits	HK$ million	1,669	1,786	2,082	2,360	2,825
Payments to providers of funds [2]	HK$ million	4,613	5,434	132	138	75



https://www.hongkongairport.com/iwov-resources/file/sustainability/environment/sustainable-finance/AAHK_Sustainalytics_ESG_Risk_Rating_Summary_Report_2024.pdf

Why ESG Metrics Matter in Finance

A. Identify Financially Material Risks

- ESG metrics reveal climate, social, and governance risks that affect cash flow, asset value, and cost of capital.

B. Support Investment & Capital Allocation Decisions

- Metrics are integrated into NPV (Net Present Value), IRR (Internal Rate of Return), payback period, and scenario analysis.

C. Improve Transparency & Stakeholder Trust

- High-quality ESG metrics reduce information asymmetry and strengthen investor confidence.

D. Benchmark Performance & Competitiveness

- Metrics allow comparison across industries and markets.

Who Requires ESG Metrics?

Hong Kong (HKEX)

- Mandatory ESG disclosure for listed companies
- Climate metrics aligned with TCFD

Global (ISSB)

- IFRS S1: General sustainability metrics
- IFRS S2: Climate metrics (GHG emissions, carbon intensity, scenario analysis)

International (TCFD)

- Governance, strategy, risk management, metrics & targets

EU Corporate Sustainability Reporting Directive / The European Sustainability Reporting Standards (CSRD / ESRS)

- Mandatory double materiality
- Detailed ESG metrics with assurance

Case Study

ESG Ratings

Since 2022, AAHK has obtained ESG ratings from Standard & Poor (S&P) Global Ratings and Sustainalytics.

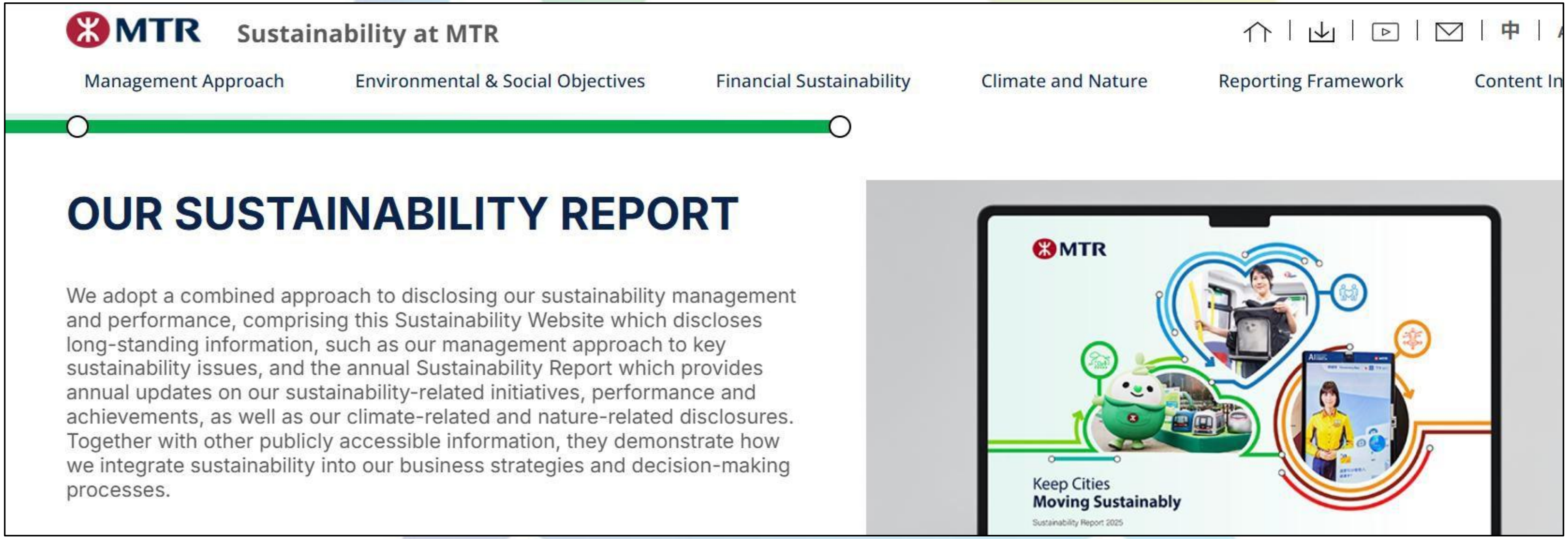
- Rating: 75/100
- HKIA is the first airport globally to have its ESG rating publicised by S&P.
- Last updated: July 2023
- ESG Rating Report in 2022
- ESG Rating Report in 2023

- Rating: Low risk with a score of 13.2
- Ranked top 3 among the 84 airports evaluated
- Top-Rated ESG Performer (2023, 2024 and 2025)
- Last updated: December 2024
- ESG Rating Report in 2022
- ESG Rating Report in 2023
- ESG Rating Report in 2024

https://www.hongkongairport.com/iwov-resources/file/sustainability/environment/sustainable-finance/AAHK_Sustainalytics_ESG_Risk_Rating_Summary_Report_2024.pdf

In-class Exercise 2 - ESG disclosure

Let’s have a look at how MTR disclosure ESG related performances and metrics

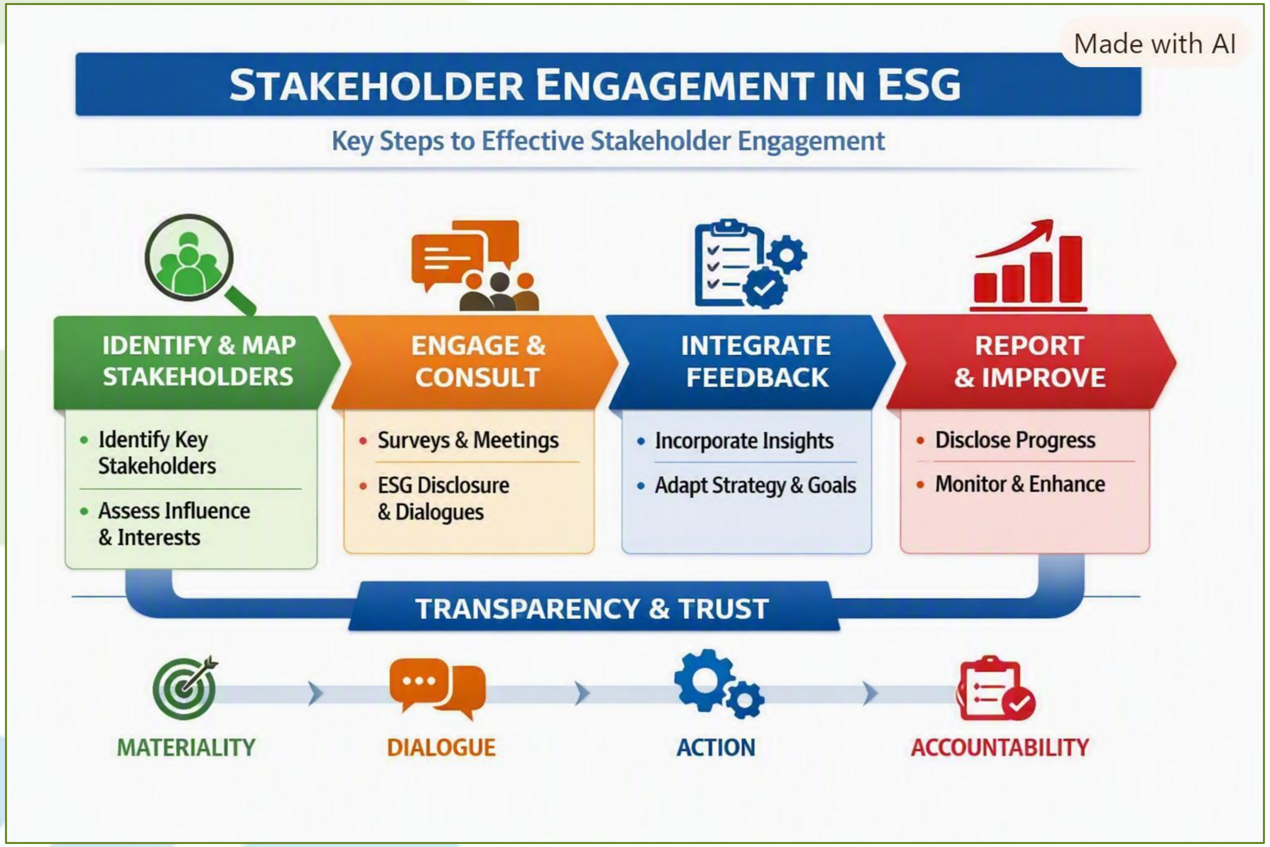


- https://www.mtr.com.hk/sustainability/en/home.html

Module 5 – Stakeholder Engagement Strategies in ESG

Stakeholder engagement is the process of identifying, understanding, and involving individuals or groups affected by a company's operations, ESG impacts, or decisions in order to:

- Identify material sustainability issues
- Build trust and strengthen licence to operate
- Improve transparency and accountability
- Reduce project delays and social risks
- Align business strategy with stakeholder expectations



Strategy 1: Stakeholder Identification & Mapping

Key Actions

- Identify internal & external stakeholders
- Map influence, interest, and impact
- Prioritise stakeholders based on ESG materiality
- Understand expectations, concerns, and potential risks

Tools

- Stakeholder matrix
- Materiality assessment
- Impact mapping

Why It Matters

- *Ensures ESG decisions reflect the needs of those most affected and reduces blind spots in risk management.*

Strategy 2: Engagement Methods & Communication Channels

Key Engagement Methods

- Surveys, interviews, focus groups
- Community meetings & public consultations
- ESG reporting & disclosure
- Digital platforms & grievance mechanisms
- Investor briefings & sustainability roadshows

Why It Matters
Improves transparency, builds trust, and ensures stakeholders have meaningful opportunities to influence ESG decisions.

Strategy 3: Integrating Stakeholder Feedback into ESG Decisions

- Incorporate feedback into ESG strategy, KPIs, and reporting
- Adjust project design based on community or investor concerns
- Use stakeholder input to refine risk management
- Document engagement outcomes and follow-up actions

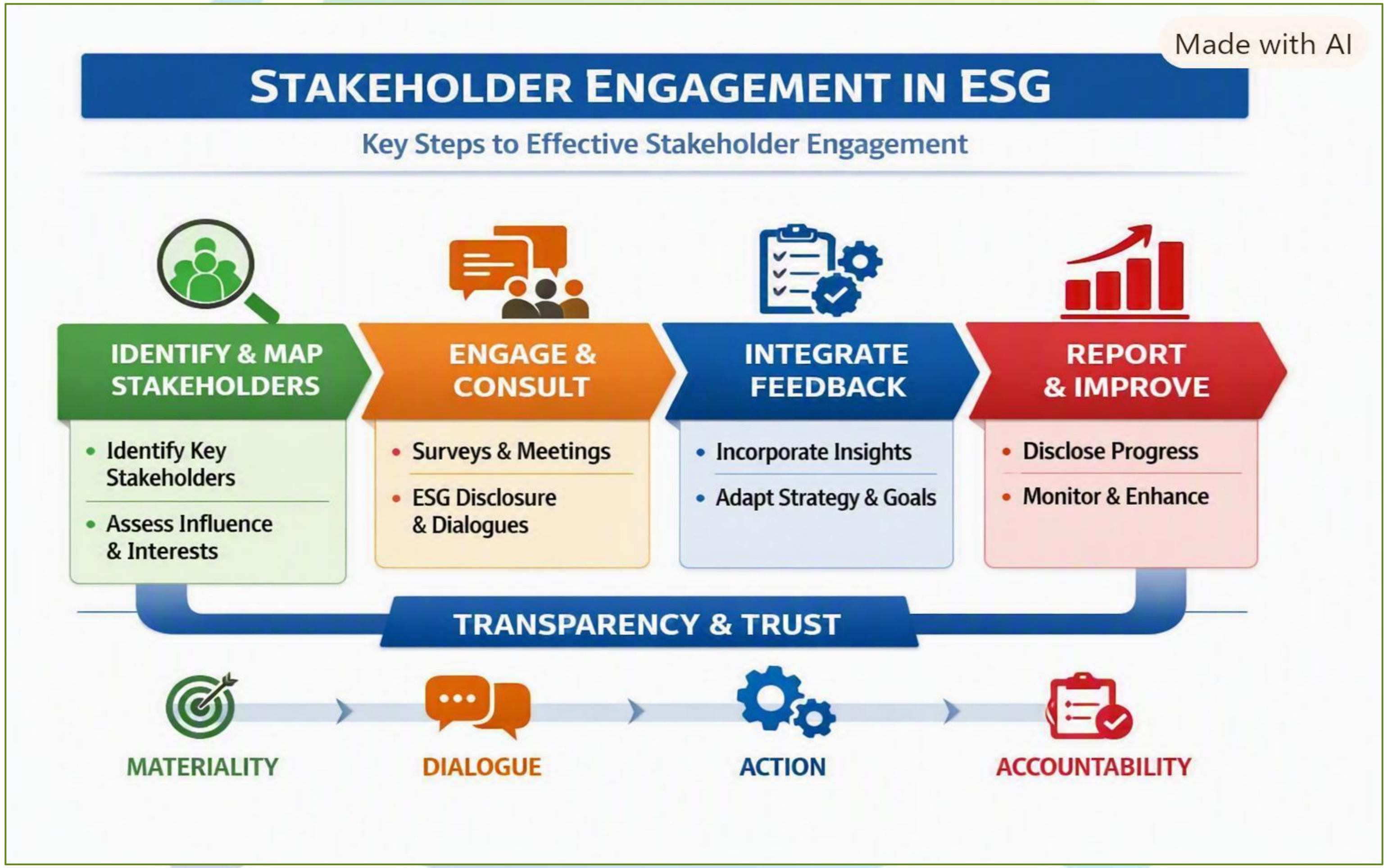
Why It Matters
Creates a feedback loop that strengthens ESG governance, reduces social risk, and improves long-term enterprise value.

Strategy 4: Reporting, Monitoring & Continuous Improvement

- Report ESG performance transparently
- Monitor progress against stakeholder expectations
- Provide updates on commitments and corrective actions
- Use assurance to strengthen credibility
- Continuously refine engagement strategy

Why It Matters
Maintains trust, demonstrates accountability, and aligns with global reporting standards.

Case Study – Stakeholders Engagement



https://www.hongkongairport.com/iwov-resources/html/sustainability_report/eng/SR1718/our-approach/stakeholder-engagement/

2025-10-14　民航工會與勞工處、機管局會面 共商惡劣天氣及「極端情況」下機場僱員權益保障

港聞 / 突發

機場T2擴建工程爆欠薪$3000萬　三判天幕工人罷工抗議

新北大嶼海岸公園為海洋生態保育創造協同效益

2024/11/01

三跑道系統發展中承諾的主要環境影響緩解措施

（香港，2024年11月1日，下午4時）－與香港國際機場相連的全港面積最大海岸公園－北大嶼海岸公園今天成立，涵蓋約 2 400公頃水域，是擴建香港國際機場成為三跑道系統的核准《環境影響評估報告》及環境許可證中承諾進行的其中一項主要緩解措施。

Prayer Rooms

Terminal 1

- Near Arrival Gate 35, Arrival Level (L5)
- Near Gate 13-21, Departures Level (L5), T1 Satellite Concourse
- Near Gate 42, Departures Level (L6)
- Near Gate 211, Departures Level (L6), T1 Midfield Concourse
- End of Check-in Aisle A, Departures Level (L7)

Terminal 2

- End of Check-in Aisle V, Departures Level (L7)

Module 6 - Why ESG Matters in Financial Decision-Making

- ESG has gained traction among investors, companies increasingly integrate this kind of thinking into their strategic planning, reporting, and communications choices, and leverage ESG performance as a way of tapping into new markets.
- ESG factors increasingly influence **cost of capital**, **access to financing**, and **investor confidence**
- Regulatory pressure (HKEX, China, EU CSRD/ESRS, ISSB) drives mandatory integration
- ESG performance signals **management quality**, **risk resilience**, and **long-term value creation**

The Push for Change and the Rise of ESG

- ESG practice gained the financial world’s attention following the 2005 UN-sponsored report, The Global Compact, which argued that embedding ESG into capital markets would lead to better societal outcomes.

- The UN subsequently developed the Principles for Responsible Investment (PRI) to be the standard for global asset manager and asset owner groups to contribute to a sustainable global financial system.

PRI PRINCIPLES FOR RESPONSIBLE INVESTMENT
20 YEARS OF PROGRESS

ESG Integration in Capital Allocation

ESG considerations in Capital allocation decisions	Capital prioritisation shifts toward	Investors increasingly price ESG risks into:
• Climate transition risks • Physical climate risks • Social licence to operate • Governance quality & board oversight	• Low-carbon technologies • Energy efficiency • Sustainable supply chain investments • Resilient infrastructure	• Discount rates • Valuation models • Credit spreads • Insurance premiums

How Investors Integrate ESG

ESG Integration: embedding ESG into valuation models

Screening: exclusionary or best-in-class

Thematic investing: climate, water, biodiversity

Impact investing: measurable social/environmental outcomes

Active ownership: engagement + voting

Hong Kong Example:

- **HSBC & Standard Chartered – ESG in Lending Decisions**
- Banks in Hong Kong integrate ESG into credit risk assessments.
- High-emission sectors face **stricter lending criteria** and **higher interest rates**.
- Sustainable finance products (green loans, sustainability-linked loans) reward companies with strong ESG performance.


Made with AI
ESG Investment Strategies
ESG Integration
Incorporate ESG factors into financial analysis
Screening
Exclude or select companies based on ESG criteria
Thematic Investing
Invest in specific ESG themes (e.g., climate, water)
Impact Investing
Generate measurable social & environmental impact
Active Ownership
Engage with companies to drive ESG improvements
CFA Institute
PRI Principles for Responsible Investment
IFC International Finance Corporation
WORLD BANK GROUP
UNPRI

跨境電商（如 **SHEIN**、**Temu**）與服飾紡織業：
遭遇西方「綠色大軍」的碳足跡與品牌形象阻擊

案例背景：
西方市場（特別是歐盟和美國部分州）近年對「快時尚（Fast Fashion）」的碳排放和環境破壞審查極其嚴格，歐盟亦逐步推進將紡織服裝納入碳足跡追溯與生產者責任延伸（EPR）制度。

實質影響與品牌形象危機：
供應鏈被強行「穿透」：
像 **SHEIN**（希音） 這類依賴中國大灣區成千上萬家中小服裝廠「小單快反」模式崛起的巨頭，在海外上市或擴張時，頻繁遭遇西方環保組織、監管機構關於「供應鏈碳排放過高、浪費嚴重」的輿論阻擊與法規審查。

沉重的法遵與轉型成本：為了維護海外品牌形象並符合當地法律，SHEIN 必須砸下數億元人民幣建立「供應鏈碳管理系統」，強行要求內地合作的家庭式、作坊式服裝廠進行節能改造、記錄碳排數據，並大量採購昂貴的再生聚酯纖維等環保面料。這極大地增加了其過去引以為傲的低成本運營壓力。


Shein opens its first physical store in Paris, faces protests, a €40 million fine, and calls for a ban, but continues to draw crowds of customers, putting pressure on French fashion and forcing Europe to react to Chinese fast fashion.

Written by Maria Heloisa Barbosa Borges
Published 24/12/2025 às 11:39

Business

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Shein opens a store in Paris and challenges France with its fast fashion model, facing protests, a

中國新能源汽車（如比亞迪 **BYD**、蔚來 **NIO**）：
面臨歐盟「反補貼」與「供應鏈碳審查」的雙重夾擊

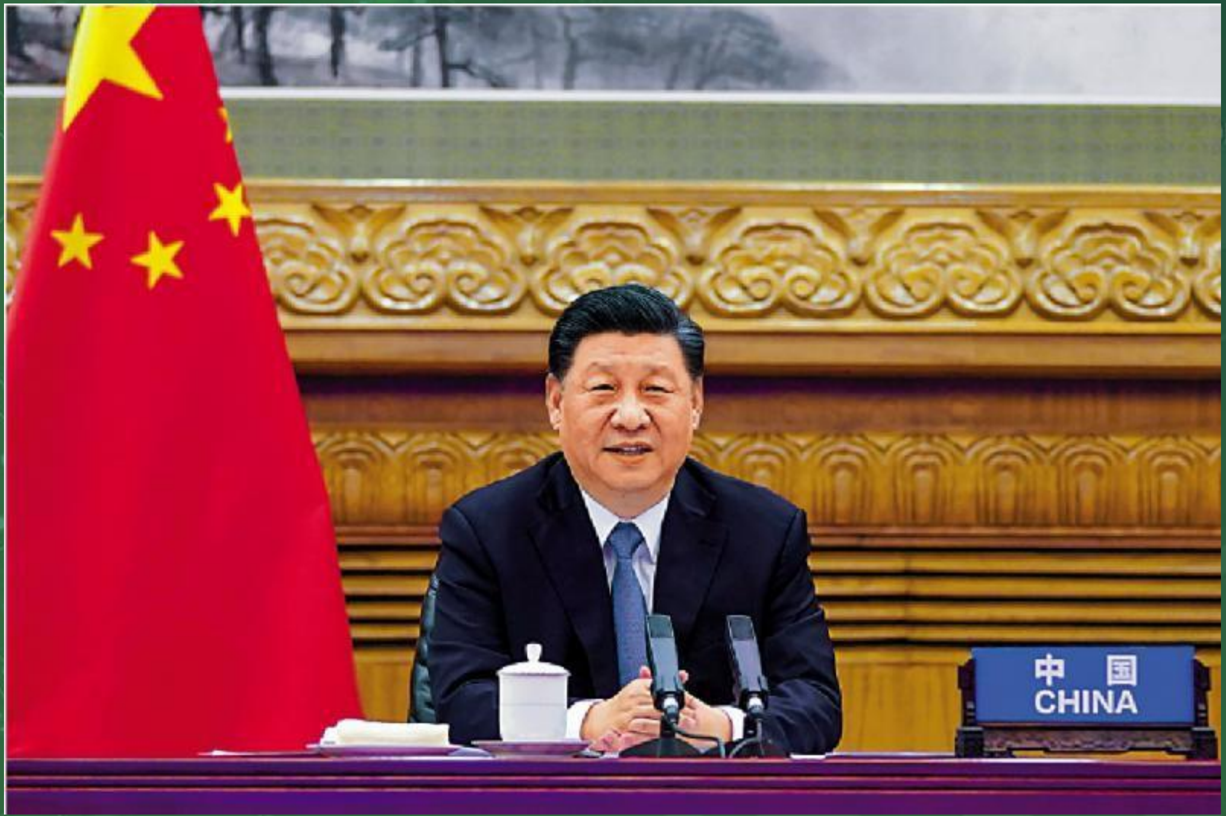
案例背景：
雖然中國電動車本身是零排放產品，但歐盟的CBAM 正在延伸到汽車下游零部件（含有鋼、鋁、塑料的製成部件）。

實質影響：
歐洲汽車買家和監管機構現在要求比亞迪等品牌提供車輛全生命週期（從採礦、製造、運輸到回收）的碳足跡報告。如果一輛中國電動車在製造過程中使用的是北方燃煤發電廠的電力，其「隱含碳」就會過高，在歐洲銷售時就會在品牌名譽和潛在綠色補貼上吃虧。這也是為什麼比亞迪、奇瑞等品牌近年瘋狂在泰國、巴西、匈牙利布局整車工廠，並要求上游零部件供應商必須隨之搬遷或使用綠電的根本原因。

香港成為國際碳交易中心

機遇與潛力

國家戰略需求



為貫徹落實國家“2030碳達峰、2060碳中和”戰略目標，極需加強粵港澳大灣區綠色金融與碳市場專業人才儲備。當前全球碳市場規模已突破3萬億美元，而大灣區作為我國開放前沿，需加快構建與國際接軌的碳中和人才認證體系。

國家將香港定為國際碳交易中心，香港將會積極引入更多碳市場相關的產業鏈及培育人才，香港政府亦積極拓展碳市場的藍圖，透過發展碳交易中心開拓香港產業支柱。

中國作為全球生產大國，中國企業（23省合共超過5,000萬間）需要透過香港作為窗口將企業的產品進軍海外市場，作為中國最重要的碳市場接軌國際的主要戰略地方，開拓無限商機。

國家「十五五」規劃（2026-2030年）

培育與發展「新質生產力」： 將高科技、高端製造、綠色化轉型列為優先方向，煥新新興產業，布局未來產業（如商業航天、腦機接口），增強產業鏈韌性。

開放型經濟新格局： 推動從「邊境開放」向「制度型開放」升級，積極對標國際高標準經貿規則，推動高質量共建「一帶一路」。

強化科技與創新： 配合國家發展，推動傳統產業數位轉型，壯大創科產業（AI、新材料、低空經濟），打造為國際創新科技中心。

深化粵港澳大灣區合作： 加快發展北部都會區，主動對接深港跨境發展，促進兩地產業資源互補。

吸引國際人才： 推動人才引進（高才優才），發揮香港「背靠祖國、聯通世界」優勢，助力內地企業「走出去」。

金融強國與貿易： 鞏固提升「八大中心」地位，深化國際科技合作，參與全球科技治理

兩會｜陳帆、陳曉峰倡推動香港碳交易發展　聯京滬設「碳市通」建全球交易中心

有線新聞 · 2025年03月07日　分享

[【有線新聞】全國兩會正在北京舉行，人大代表陳帆和陳曉峰提交聯合建議，推動香港建設碳交易體系，並與上海、北京相關機構推出「碳市通」機制，打造香港成全球碳交易中心。]

亞洲綠色和可持續金融中心

香港是亞洲領先的綠色和可持續金融中心，2024年在在香港安排發行的綠色和可持續債券總額約430億美元，佔地區總額約45%，並自2018年起連續七年居亞洲區市場的首位。香港亦是亞洲領先的金融科技樞紐，在全球金融中心指數當中金融科技範疇排名世界第一。

香港發展碳市場的藍圖所涵蓋的企業將會成為第一批需要服務的目標，亦是打開中國龐大市場的重要部份，而碳市場金融發展更是香港發展重點，定必成為國際投資者的焦點。

Sustainability vs ESG

Sustainability: "… meeting the needs of the present without compromising the ability of future generations to meet their own needs"
– *Our Common Future* ("Brundtland report")

Long-term, holistic, system-wide

ESG: "Recommendations by the financial industry to better integrate <u>environmental, social and governance</u> issues in analysis, asset management and securities brokerage."
– *Who Cares Wins*

Investment focused, measurable, financial value

Source: United Nations (1987), UN Global Compact (2004)

Why ESG matters to corporate finance?

<u>*The Six Principles for Responsible Investment:*</u>

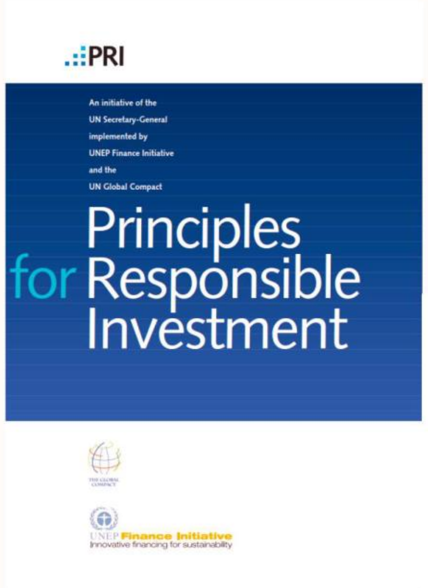
1. We will incorporate **ESG** issues into investment analysis and decision-making processes.

2. We will be active owners and incorporate **ESG** issues into our ownership policies and practices.

3. We will seek appropriate disclosure on **ESG** issues by the entities in which we invest.

4. …

- **5,000 signatories**
- **~ USD 140 trillion AUM**



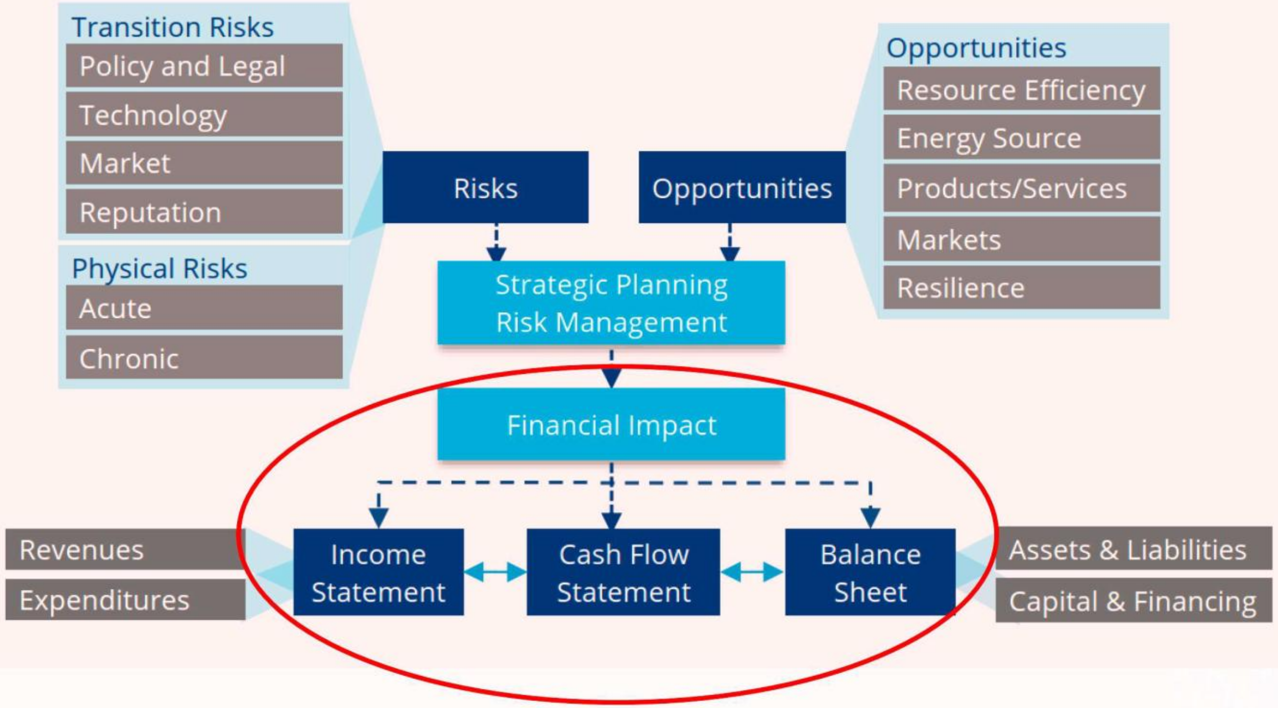
PRINCIPLES FOR RESPONSIBLE INVESTMENT
20 YEARS OF PROGRESS

Source: PRI website, PRI (2006, 2007)

Why ESG matters to corporate finance?

Figure 1

Climate-Related Risks, Opportunities, and Financial Impact

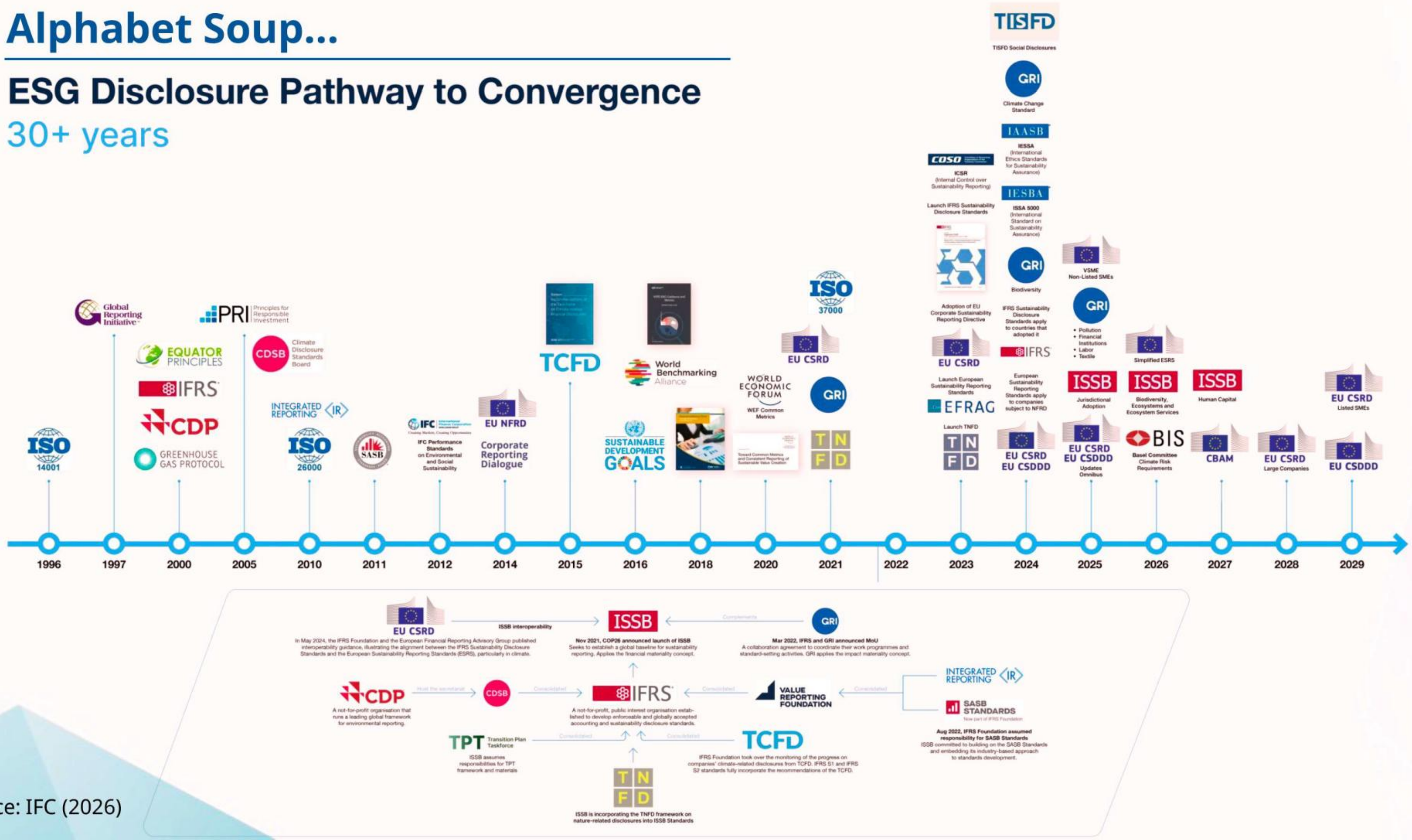


Source: TCFD (2017)

Alphabet Soup...

ESG Disclosure Pathway to Convergence

30+ years



Source: IFC (2026)

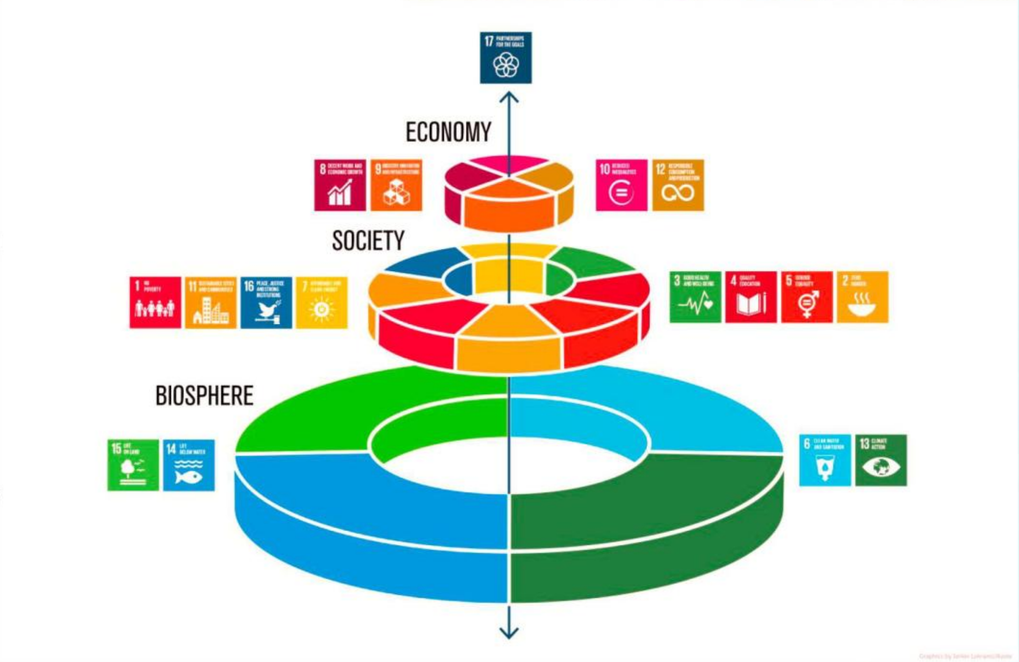
Global trend - brief history

0. *Pre-2004*: Socially Responsible Investment (SRI)

1. *2004-2015*: ESG Integration
   - PRI, stewardship, active ownership, ESG analysis, ESG ratings

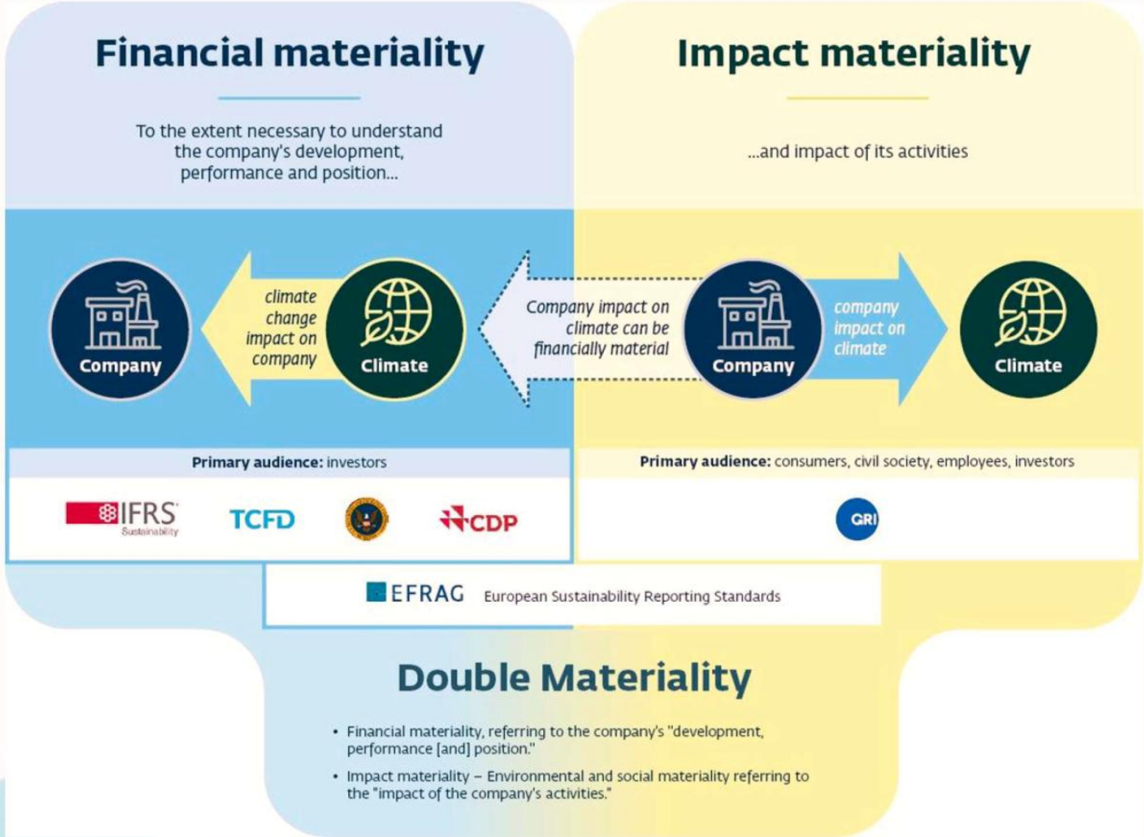
2. *2015-2022*: Sustainable Finance
   - UN SDGs, Paris Agreement, TCFD
   - Taxonomies, green bonds, sustainability-linked loans, climate funds

3. *2022-present*: Transition and Outcomes
   - ISSB, TNFD
   - Just Energy Transition Partnership (JETP), Article 6 (ITMOs)



Source: UN (2015), Stockholm Resilience Centre (2016)

Megatrend 1: Mandatory disclosure and regulatory interoperability



From Voluntary to Comply or Explain, then Mandatory

- ISSB Standards become dominating in corporate sustainability disclosure around the world (US SEC?)
  - ➢ ISSB rests on "financial materiality"
  - ➢ GRI remains/repositioned for "impact materiality"
  - ➢ EU ESRS chosen "double materiality"

Standardization, Anti-greenwashing

Source: IFC & European Commission

Hong Kong timeline

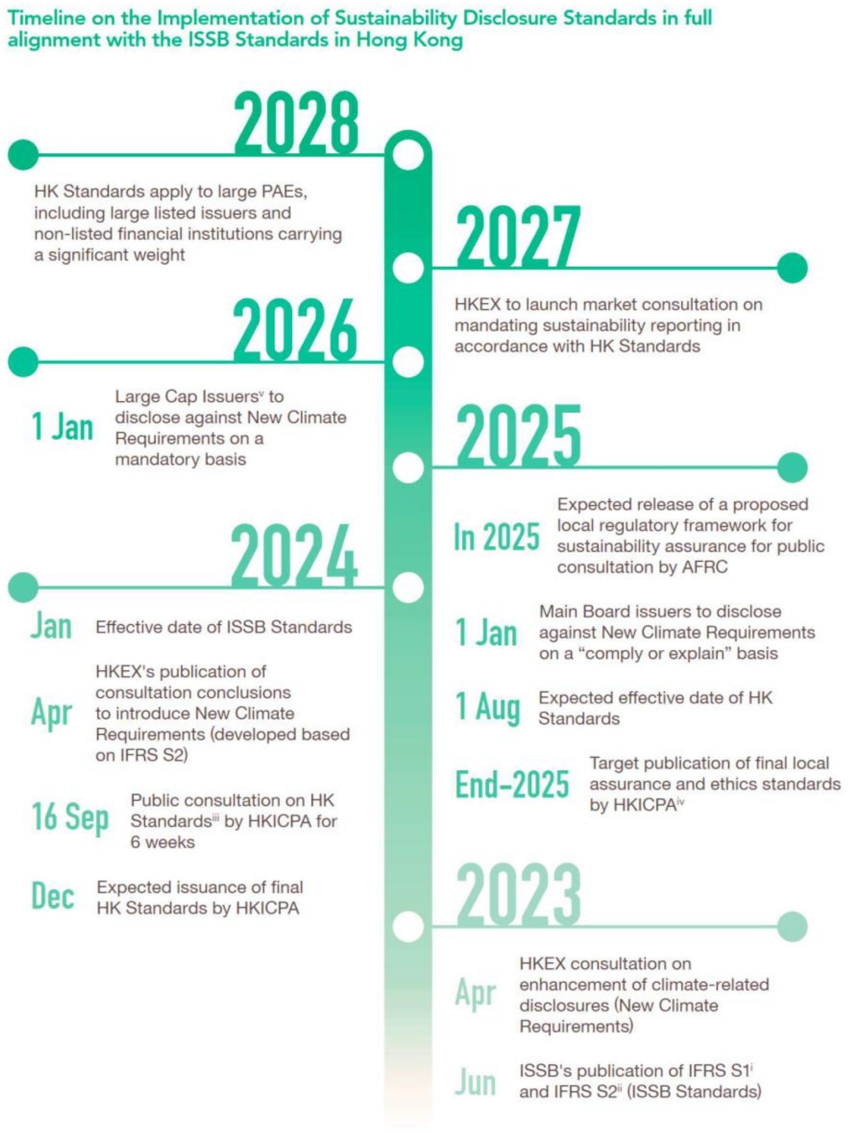
- HKEX published new climate requirements (based on IFRS S2) in Apr 2024
- HKICPA published HKFRS S1 & S2 in Dec 2024
- AFRC consultation on *Sustainability* ***Assurance*** in Dec 2025
- Phased adoption of HKEX requirements from 2025 onwards
- Mandatory adopt HKSDS by large PAEs in 2028
- Mandatory assurance proposed 3rd/5th year, using ISSA 5000


AFRC Accounting and Financial Reporting Council

Consultation Paper on the Proposed Regulatory Framework for Sustainability Assurance in Hong Kong

December 2025

Source: Hong Kong CASG, AFRC

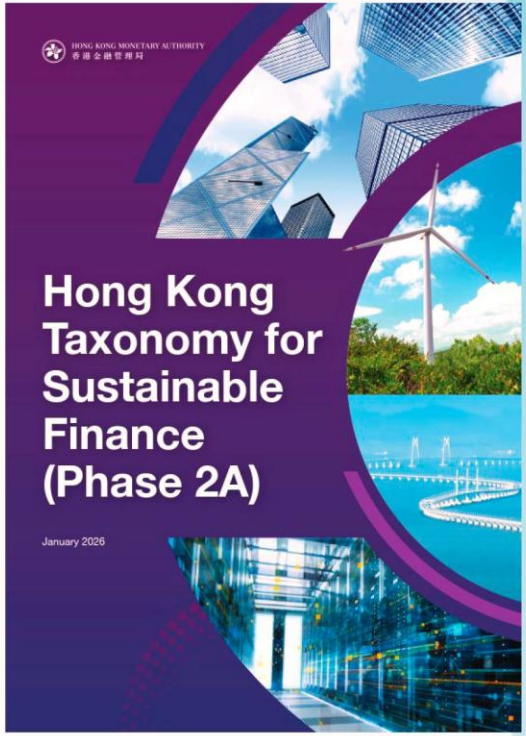


Megatrend 2: Transition finance – stepping beyond pure green

- Expanding from “dark green” to wider sectors
  - ➢ “hard-to-abate” industries: iron & steel, cement, chemicals, petrochem, aviation, shipping, etc.
  - ➢ corporates to formulate creditable transition plans

    - arranging and issuing transition loans and bonds
  - ➢ investors and banks would review transition plans

    when considering investment and lending decisions
  - ➢ Just Energy Transition for coal phaseout and power plant retirement
- Hong Kong Taxonomy (Phase 2A) updates
  - ➢ recognizes transition activities and measures
  - ➢ expands to cover 6 sectors (from 4), adding manufacturing and ICT



Source: HKMA (2026)

Megatrend 3: Climate adaptation over decarbonization

- Atomspheric CO_2 concentration and global average temperature rising
- Extreme weather events increase in frequencies and intensity
  - ➢ heatwaves, wildfires, flooding, droughts, tropical cyclones, etc.
- Sea level rise, ocean warming (overlapping with super strong El Nino); permafrost thawing, etc.
- 90% climate investment went to mitigation finance (e.g. renewables)
  - ➢ 90% of adaptation finance come from public sources
- Annual funding gap of the order USD 200-300B for adaptation
- COP28: Framework for Global Climate Resilience & Call for Collaboration
  - ➢ adaptation infrastructure, water security, resilient agriculture, healthcare
  - ➢ early warning systems, disaster response and logistics
- Latest Hong Kong Taxonomy also covers Adaptation

Source: WRI, Climate Policy Initiative, Standard Chartered, UNEP FI

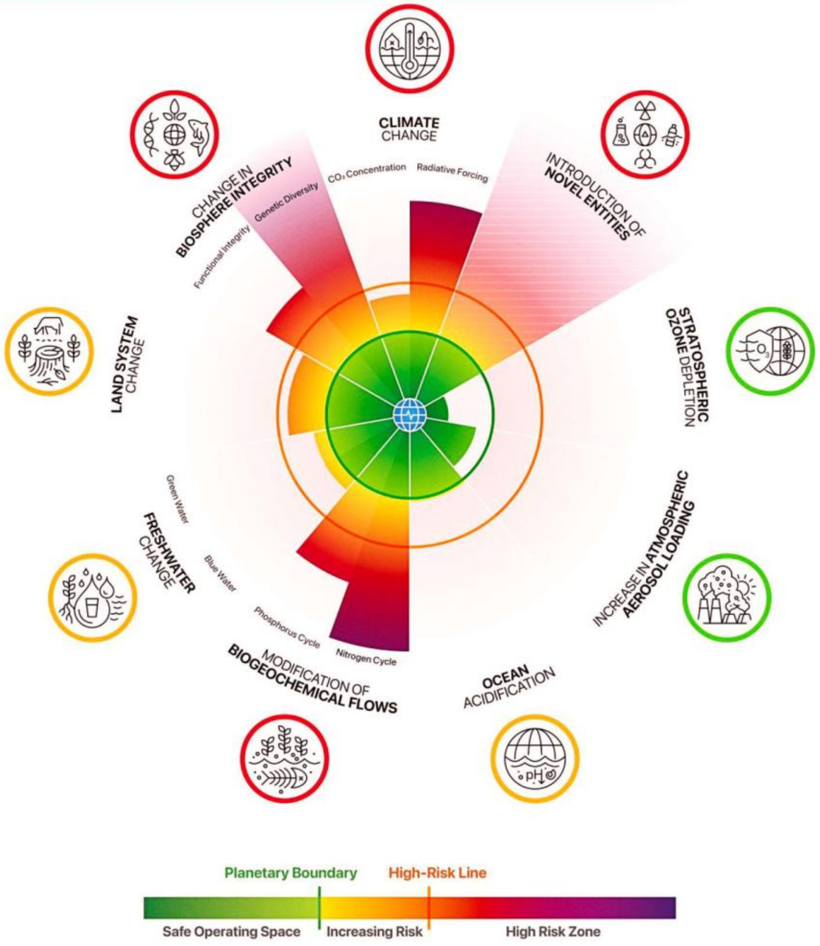
Megatrend 4: Nature and biodiversity as a new dimension of agenda

- 7 of 9 “planetary boundaries” have been crossed in 2025
- TNFD formed in 2021 and published final recommendations in Sep 2023
  - ➢ LEAP approach:
    Locate, Evaluate, Assess, Prepare
- GRI, CDP, and EU CSRD mapping between TNFD framework

- ISO standard on Biodiversity in Strategy and Operations
- ISSB to publish draft Practice Statement in Oct 2026

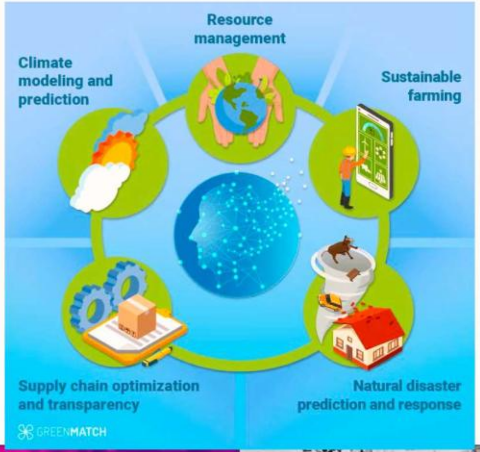
➢ Nature-based solutions (NbS) can be economic, effective, ecological/equitable/efficient choice for climate mitigation and adaptation

➢ “Biodiversity Credits” are emerging as a new environmental commodity



Source: TNFD, ISSB, ISO, Potsdam Institute for Climate Impact Research (PIK)

Megatrend 5: Technology as enabler yet bringing new challenges

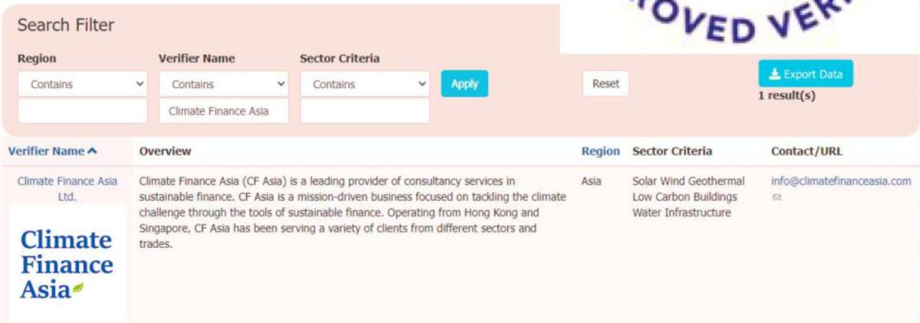


- AI-driven tools and technologies support:
  - energy efficiencies
  - emission data collection and management (together with blockchain)
  - physical risk modelling, extreme weather warning,
  - …
- Data centres consume massive amount of electricity and water
  - Stressing electricity grid stability and energy bill
  - Delaying fossil fuel phase out
  - Natural gas power generators emit air pollutants and greenhouse gases
  - Green debt for data centres accumulates to USD 186B since late 2022 (ChatGPT)

Source: Floodlight, GreenMatch

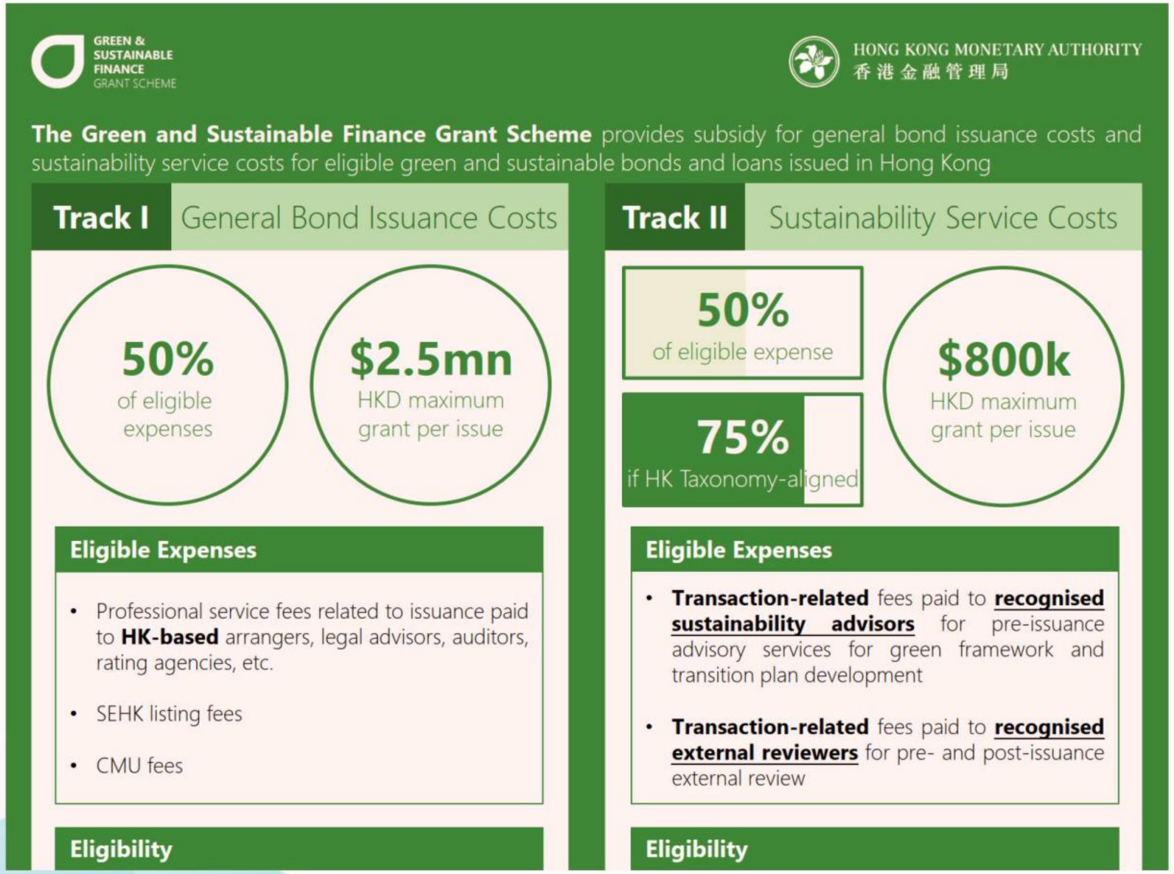
GSS+ debt instruments

- Green bonds/loans (*Use-of-proceeds*)
  - ➢ Green buildings, energy efficiency
  - ➢ Renewables (solar, wind, geothermal, etc.)
  - ➢ Clean transport
  - ➢ Water and waste management
  - ➢ Sustainable agriculture
  - ➢ …
- Sustainability-linked bonds/loans (SLLs)
  - ➢ setup agreed sustainability performance targets (SPTs) on KPIs with lender/investors
  - ➢ step-up (discount) of interest rates if targets missed (achieved)



Source: CBI, ICMA

HKMA Green and Sustainable Finance Grant Scheme (updated Apr 2026)



GREEN & SUSTAINABLE FINANCE GRANT SCHEME

HONG KONG MONETARY AUTHORITY 香港金融管理局

The Green and Sustainable Finance Grant Scheme provides subsidy for general bond issuance costs and sustainability service costs for eligible green and sustainable bonds and loans issued in Hong Kong

Track I General Bond Issuance Costs

50% of eligible expenses

$2.5mn HKD maximum grant per issue

Eligible Expenses

- Professional service fees related to issuance paid to **HK-based** arrangers, legal advisors, auditors, rating agencies, etc.
- SEHK listing fees
- CMU fees

Eligibility

Track II Sustainability Service Costs

50% of eligible expense

75% if HK Taxonomy-aligned

$800k HKD maximum grant per issue

Eligible Expenses

- **Transaction-related** fees paid to **recognised sustainability advisors** for pre-issuance advisory services for green framework and transition plan development
- **Transaction-related** fees paid to **recognised external reviewers** for pre- and post-issuance external review

Eligibility

Source: HKMA (2026)

Green and sustainable bonds/loans issued in Hong Kong

- ✓ bond issuance costs reimbursement (50%)
- ✓ sustainability service costs (50%/75%)
  - ➢ develop transition plan
  - ➢ formulate green/sustainable finance framework
  - ➢ pre- (and post-) issuance external review
  - ✓ second party opinion SPO based on ICMA principles
  - ✓ verifications according to CBI standards and criteria

Hong Kong cases

Green and sustainable bonds/loans issued in Hong Kong

- CLP: transition finance for coal-to-gas, new energy finance

  phasing out coal and aiming net-zero

- Swire Properties: allocating proceeds to green building, detailed impact reporting and assurance

- Link REIT: Green + Social + Sustainability-linked comprehensive framework

- MTR: ESG-labelled debt up to 30% of total debt outstanding

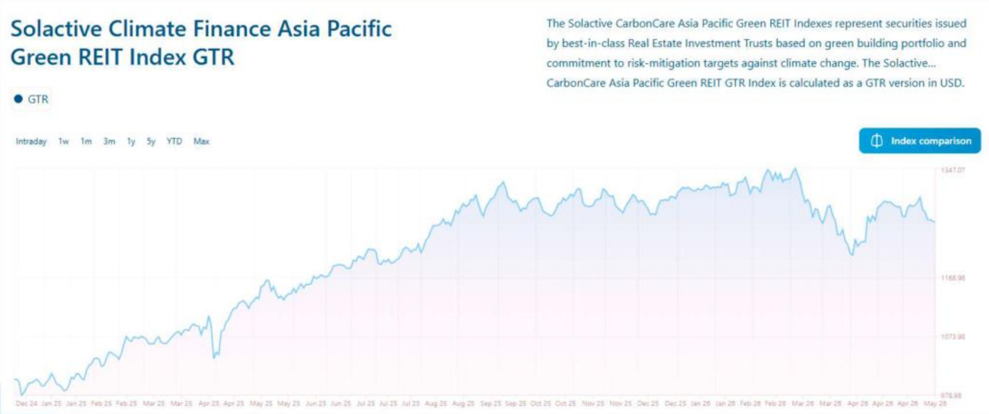
Source: Swire Properties, CLP, MTRC, Link REIT

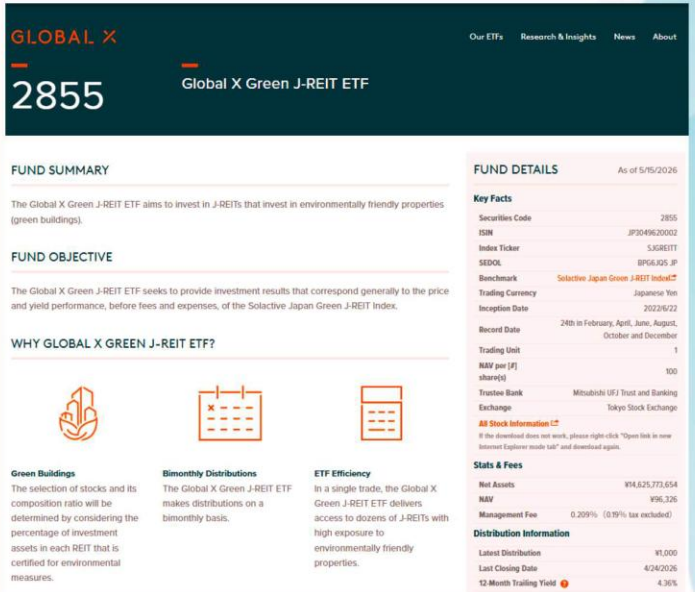
Sustainable finance investment products

ESG and thematic Bonds, funds, equity ETFs,

Example:

- ➢ Selected and weighted according to green-certified building area % and committed emission reduction targets
- ➢ Global X Green J-REIT ETF (TSE:2855)

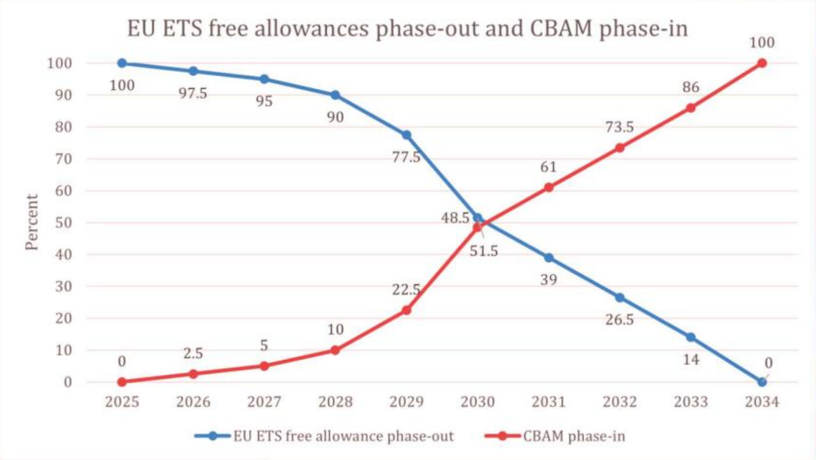


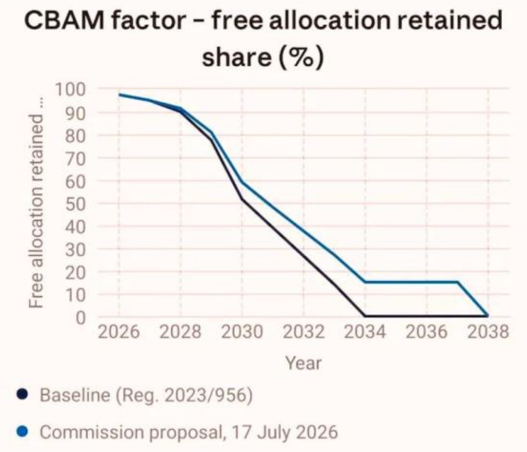


Source: Solactive, Global X

EU Carbon Border Adjustment Mechanism (CBAM)

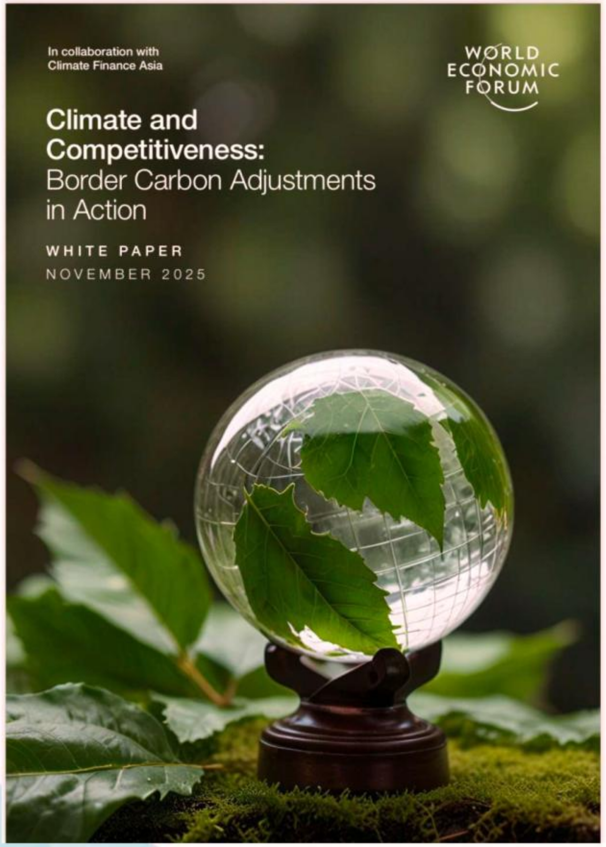
- Within Europe, certain industries are paying for their carbon emissions in EU Emission Trading System (ETS)
- To prevent carbon leakage, starting from 2026 Jan, 6 types of goods imported to Europe needs to pay for carbon cost, linked to the price in the ETS
  - ➢ iron & steel, aluminum, cement, fertilizer, electricity, hydrogen
  - ➢ potential extension to more industries in 2028
- ***Carbon cost directly enters international trade***, affect product price, profit margins, competitiveness
- Emission performance and reporting capacity link to market access
- Potential “brown premium” in the future market
- Investor concern carbon exposure and transition planning of manufacturers and exporters





Source: ICAP, cemnet.com

EU CBAM (cont.) PACE framework



Plan your administration of carbon pricing policies	**Achieve** domestic and international compliance	**Change** operations to decarbonize	**Engage** stakeholders
Establish governance and strategy for carbon pricing policies and exposure	Ensure compliance with carbon pricing policies through MRV and reporting systems	Implement operational and supply-chain decarbonization strategies	Coordinate across industry, government, and financial stakeholders

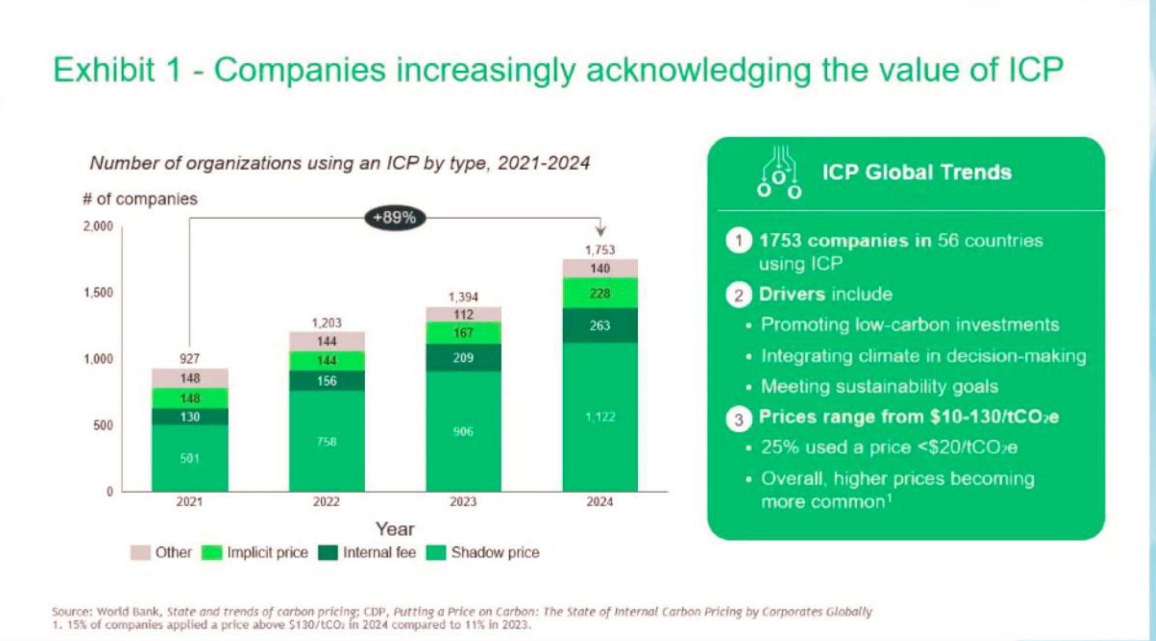
Source: WEF

Internal Carbon Pricing (ICP)

- Internal Carbon Pricing models:

➢ Shadow price

- For reference, assume a price for future emissions needs to be paid e.g. for an investment project
- No actual fee/trade, but affect important investment decisions (reducing NPV, IRR, prolonged payback period), justify green investments



➢ Internal fee

- Collect “fees” from business units/departments to create strong incentives for carbon reduction
- Reinvest collected fees to decarbonise

➢ Implicit price

- Review the marginal abatement cost (MAC) of emissions
- Optimise future capital allocation
- Stress test against potential compliance risk

Source: WBCSD, World Bank, CDP

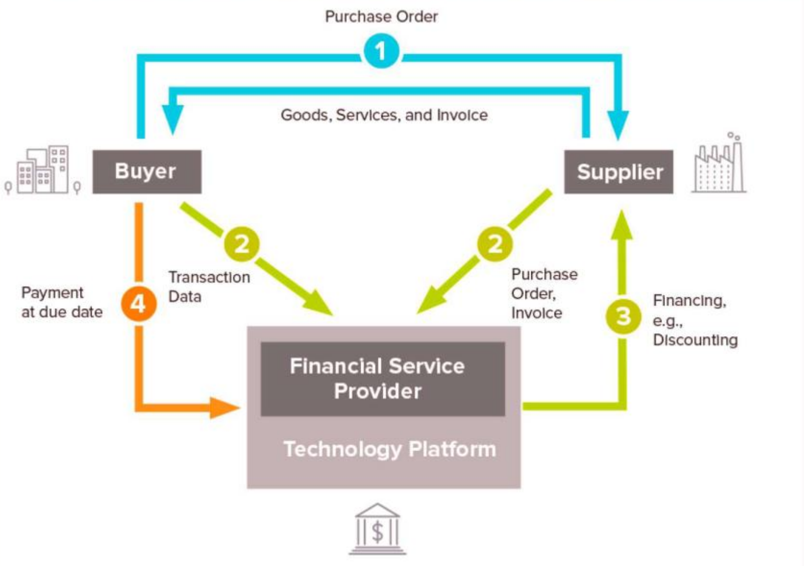
Concepts and financial adjustments

- Scenario Analysis
- Climate Value-at-Risk (Climate VaR)
  - Quantify potential monetary losses or valuation adjustments
  - Consider physical and transition risks
  - exposure, vulnerability
- Discounting cash flow, apply climate adjustments to
  - Revenue, OpEx, CapEx, …
  - recalibrate terminal value (e.g. oil and gas industry)
- Stranded Assets
  - regulatory, economic, physical

Source: Carbon Tracker

International examples

- Ørsted (formerly DONG Energy)
  - ➢ aggressive, radical capital reallocation fundamentally reshape long-term enterprise value
  - ➢ divest from fossil fuel -> build offshore wind -> sell 25-50% ownership -> fund next wind farm
  - ➢ open for community ownership during project financing to reduce opposition (reduced risk and improve NPV)
- Unilever, Walmart, Puma, etc.
  - ➢ third-party ESG or social audit & sustainable supply chain finance -> lower capital interest rates for OEM/SMEs
  - ➢ no explicit funding cost for Unilever
  - ➢ lower ESG risks, protect brand reputation and value

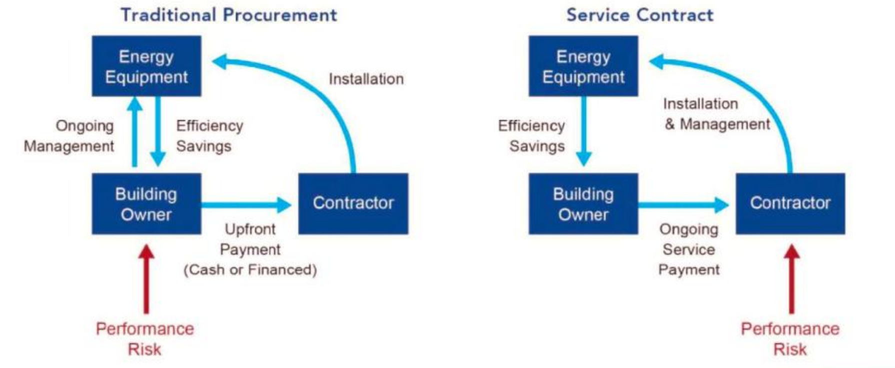


Source: Orsted, BSR

Case study: Energy-as-a-Service / Energy Performance Contracting

- Corporate wants to enhance energy efficiency, but concern about CapEx and savings amount
- Energy service company/contractor (ESCO)
  - performs energy audit
  - finance and installs upgrades and retrofits
  - operates, maintain (and owns) equipment
  - receives lower service fees if savings fall short
- Customer/user
  - zero upfront CapEx (save capital for core business)
  - cut energy bill (improve cashflow and operating margin)
  - off-balance-sheet (but long-term contract liability)
  - transfer engineering risks
  - enhance environmental performance

Figure 1: Service contracts shift performance risk and project management to a third party.



Source: redaptive.com

Case study: Solar Grazing in Agrivoltaics

- Many traditional solar farms need mowing services
  - ➢ Reduce weed shading, wildfire risk
  - ➢ Use mechanical mowing and herbicide
    - × damage of panel and wires, stands by chemicals
  - ➢ Shepherd ***gets paid*** for pasture
    - ✓ sheep are agile and efficient, mitigate land use conflict
  - ➢ OPEX: reduced; long term fixed rate (instead of per mow) -> predictable
  - ➢ Cost of capital: large scale photovoltaic plants intrude farmland and opposed by community, solar grazing reducing opposition and expedites project approval, with government policy support and enhance bankability (also preserves the soil fertility and ecology)
  - ➢ Revenue: keep agricultural tax credits/exemption (instead of commercial property tax); green premium on “solar sheep” (lamb/wool)
  - ➢ Risk management: reduce insurance premiums

Source: Wikimedia

Financial instruments for adaptation and resilience

- Parametric insurance
  - ➢ Example parameters:
    sea/river level; temperature, wind speed
  - ➢ skipping damage assessment, claim review…
    e.g. protect corporate from liquidity loss
- Catastrophe bonds
  - ➢ Investors absorbs disaster risks
  - ➢ Risk transferred to capital market
- Contingency credit facilities
  - ➢ Pre-arranged loan available after event
  - ➢ Provide cashflow/liquidity in crisis

AXA Launches Pioneering Heatwave Parametric Insurance

To safeguard outdoor practitioners amid escalating climate risks in the summer in Hong Kong

AXA Hong Kong and Macau ("AXA") is committed to being a driving force against climate change, and leveraging its expertise in climate risk assessment to support businesses in addressing related risks and building a sustainable future. Today, we are pleased to announce the launch of the market-first "**Heatwave Parametric Insurance**", an offering that aims to provide enhanced protection for outdoor practitioners that work outdoor in the summer.

Climatological data over the past three decades paints a discernible picture – the annual mean temperature in Hong Kong has exhibited a statistical increase of 0.30°C per decade from 1994 to 2023[1]. This alarming and persistent significant rise poses heightened risks for certain occupations, such as construction workers, property management staff, as well as practitioners in the public utility and transportation sectors, who are routinely exposed to outdoor conditions during extreme heat events. Recognising this pressing need, AXA took the lead to introduce the "**Heatwave Parametric Insurance**", providing flexible and convenient benefits for heat stress prevention and protecting affected practitioners.

24 OCT 2024

Successive Major Hurricanes Strike the US Southeast, Highlighting the Urgent Need to Enhance Climate Resilience

By Toby Cheng, Manager, Sustainable Finance Analysis, Climate Finance Asia

Source: AXA

Uncertain futures to watch

- Human capital
  - ➢ ISSB's research identified information gaps on human capital for investors
- Responsible and ethical AI
  - ➢ holding accountability, reliability, data security, etc. when corporates use AI
  - ➢ AI competition between China and US
- Geopolitical resilience
  - ➢ energy security of countries after US-Iran war
  - ➢ critical minerals supply chain

Source: Corporate Finance Institute

FEEDBACK SURVEY

https://forms.gle/ZYSvcQk3UEqX6YWTA

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