Mobilising Towards Net Zero Goals Beyond Policies

November 2022

The business of sustainability

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Agenda

Introduction 5 minutes

Session 1: Net Zero Goals – What are the Latest Regional Developments Among Asset Owners and Asset Managers? 20 minutes

Trista Chen, ERM Partner, Singapore

Session 2: Beyond Policy Setting – How Do Asset Owners Manage Their Carbon Footprint? 20 minutes

Margie Ong, ERM Partner, Malaysia

Session 3: Understanding Emissions – What are the Key Frameworks and How Do We Measure? 20 minutes

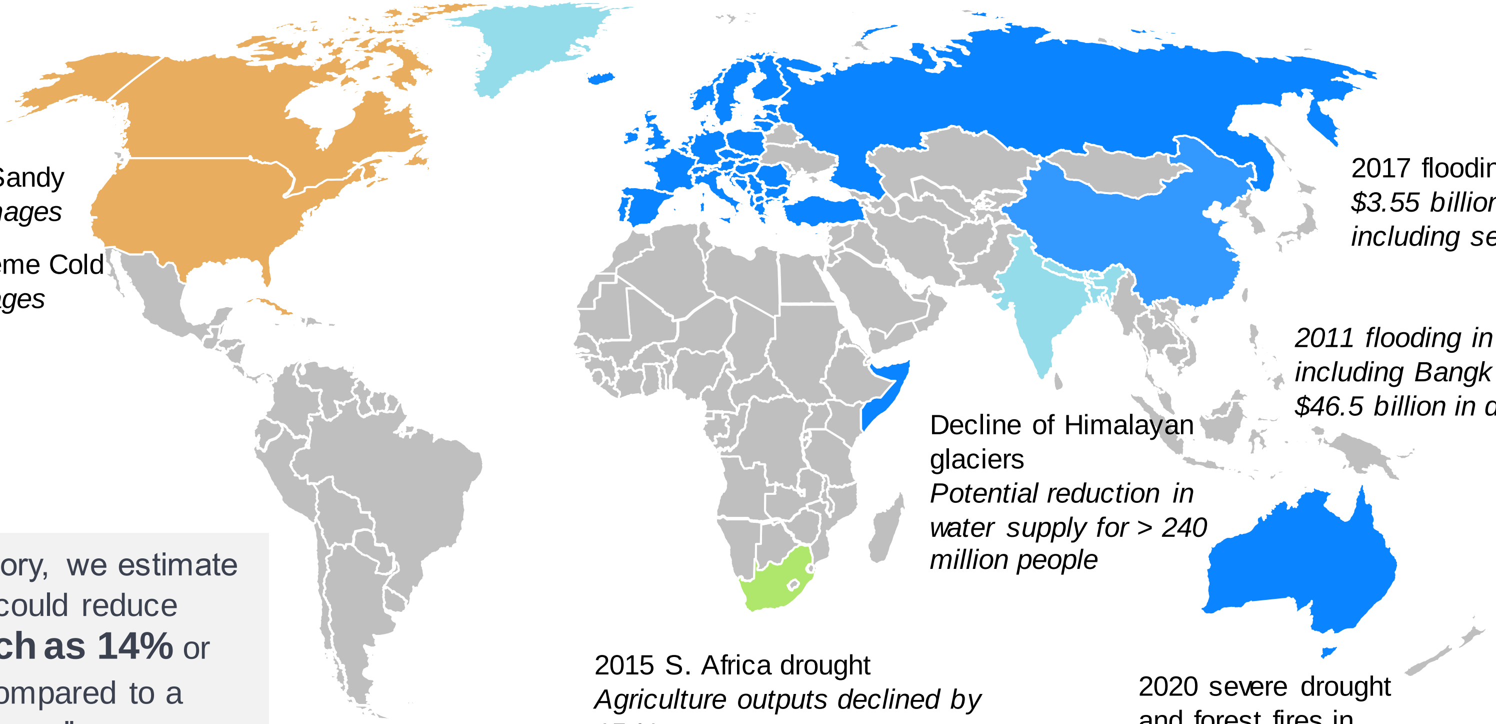
Kee Vern Lai, GHG Consultant, Malaysia

Q&A Session & Closing 25 minutes

Session 1:
Net Zero Goals

Trista Chen

A large and Increasing Impact to Global Systems



"Under the current trajectory, we estimate that rising temperatures could reduce global **GDP by as much as 14%** or **$23 trillion** by **2050** compared to a world without climate change."

Swiss Re

Global Climate Change and Policy Trends are Leading to a Range of Risks and Opportunities

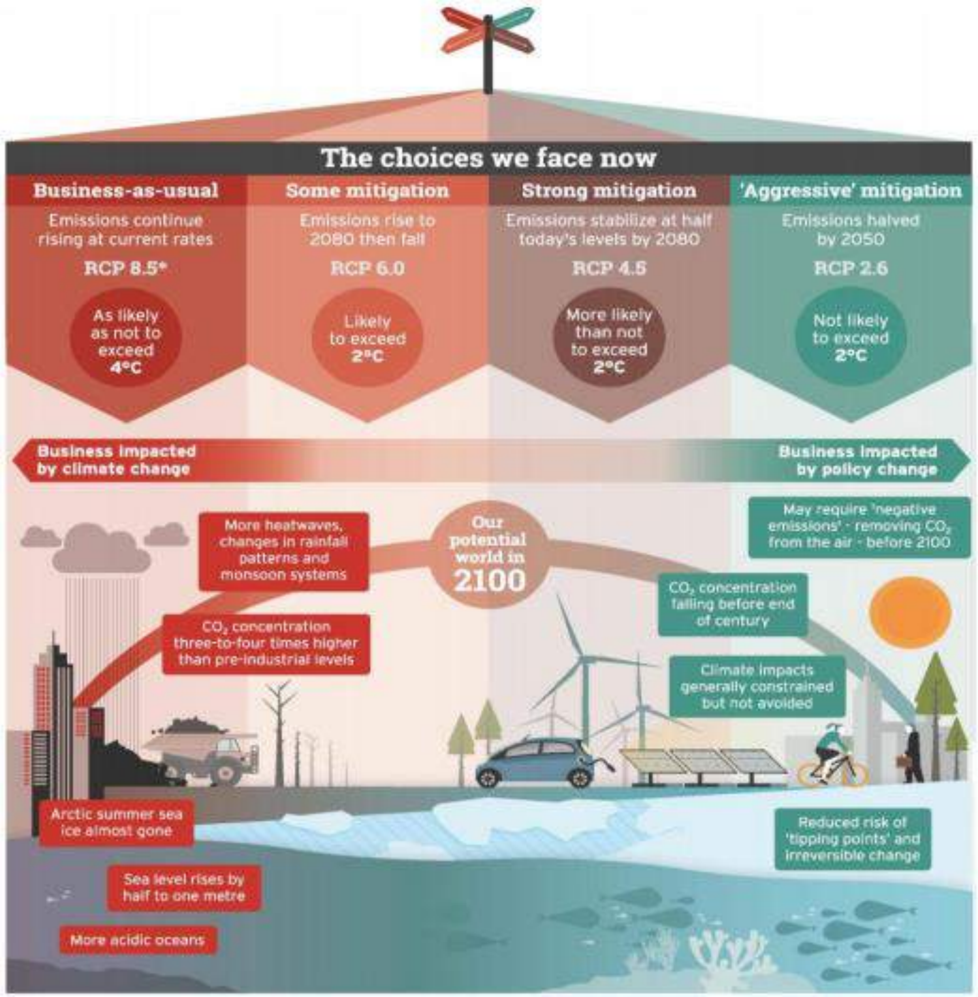
Physical Climate Risks & Resilience

Increased Operating Costs

Capital Upgrade Requirements

Macroeconomic & Local Economic Impacts

Supply Chain Disruption



Transition Climate Risks & Opportunities

Stranded Assets

Investment Opportunity / Access to Capital

Market Disruption

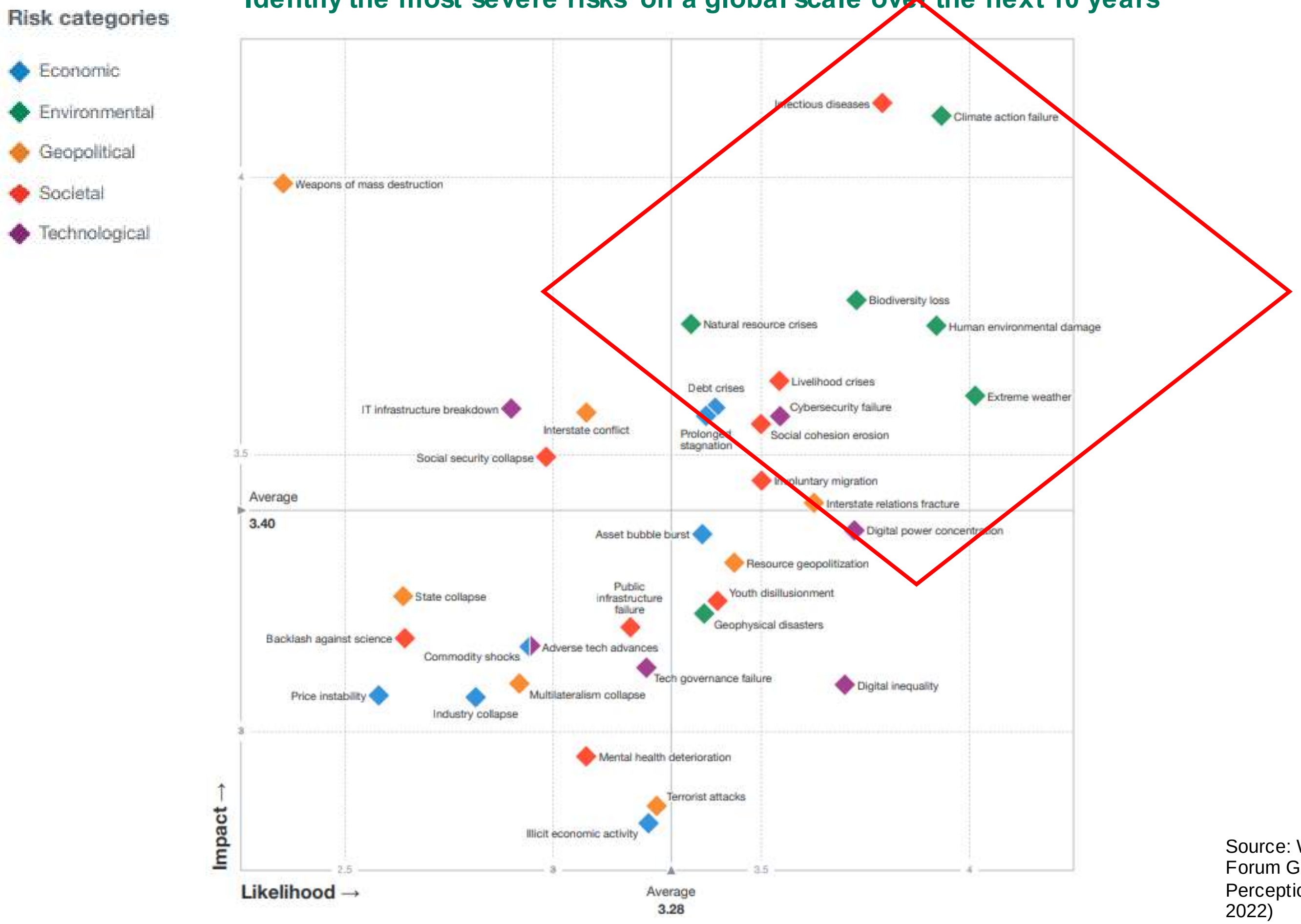
Litigation Damages, Reputation

Source: CLIMATE CHANGE: ACTION, TRENDS AND IMPLICATIONS FOR BUSINESS The IPCC's Fifth Assessment Report, Working Group 1

Growing Risk and Opportunities

As the urgency around climate change has increased, the significance of emissions reductions as well as risks and opportunities have emerged.

“Identify the most severe risks on a global scale over the next 10 years”



Source: World Economic Forum Global Risks Perception Survey 2021-2022)

1.8°C

most optimistic scenario of global warming after COP26

$130 trillion

capital confirmed as committed to net zero

40 million

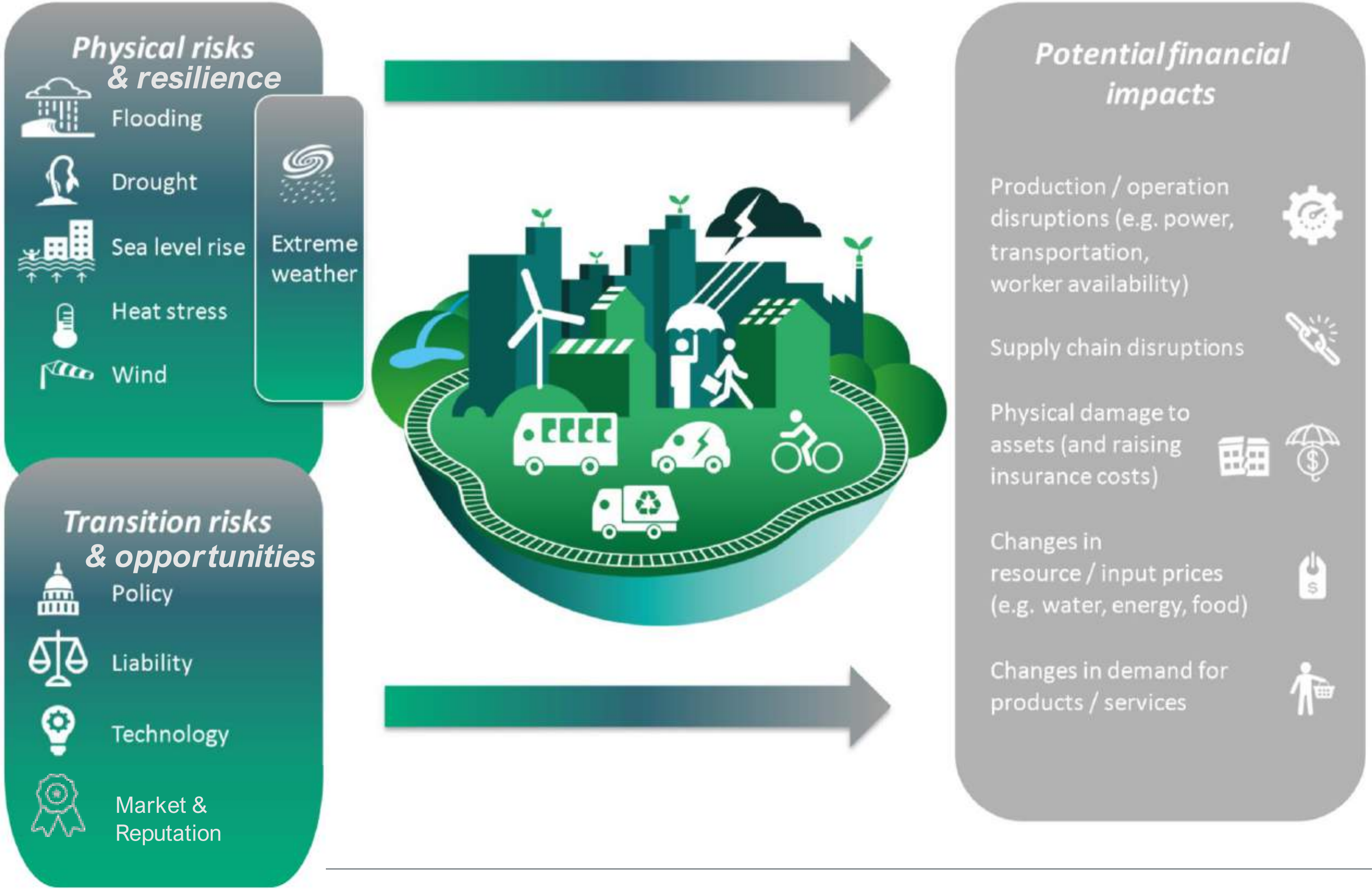
jobs created through re-skilling in renewables sector by 2050

Top 5

environmental risks lead the way in long-term concerns according to WEF

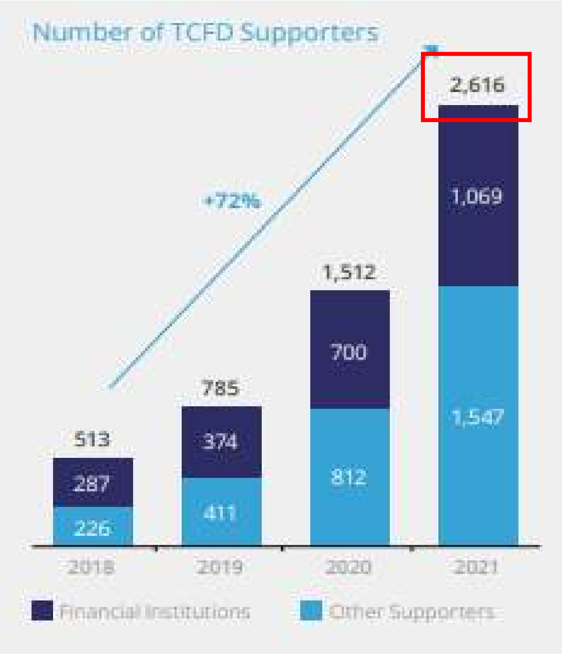
Climate Change Impacts

*Climate change impacts to companies are broad, but can be categorized as **'physical'** and **'transition'***



Growing Pressure to Disclose

The trend in climate-related reporting is being driven by financial regulators and investors' requirements, as they commit to managing and assessing impacts to economies and portfolios.



Source: TCFD 2021 Status Report (October 2021)

There is Increasing Pressure to Act on Climate Change

Investors

Enhanced corporate disclosure on climate risks and opportunities enables investors to assess the **robustness** of companies' **business plans** against a range of climate change scenarios and the potential impact on **portfolio value**.

Regulators

Governments worldwide have announced **mandatory disclosure** of **climate risks**.

Standards and Initiatives

A wide range of standards and initiatives that promote climate change related disclosure or guidance.

Lenders

Lenders are assessing how climate risks and opportunities could impact each stage of the **credit lifecycle**.

Source: ERM

Regulators and Investors

Regulators and investors are making specific requirements for disclosure

Regulators

SEC proposed rule would require public companies to disclose the following:

- Material climate-related risks that affect business
- Certain greenhouse gas emissions information
- Report on certain climate-related financial statement metrics in a note to their audited financial statements.

CSRD

The undertaking shall disclose:

- A description of it's climate-related risks & opportunities
- Its plans to ensure business model and strategy are compatible with the transition to a climate-neutral economy and with limiting global warming to 1.5 °C in line with the Paris Agreement.

Investors

Climate Action 100+

Implement a strong **governance** framework which clearly articulates the board's accountability and oversight of climate change risk.

IIGCC The Institutional Investors Group on Climate Change

Companies should publicly disclose a description of the impacts of climate-related risks and opportunities on its businesses, strategy and financial planning including an impact scenario referencing 1.5°C limit.

Consumers

In response, various standards and initiatives are promoting the disclosure of decision-useful climate-related information

Regulators and Investors

Regulators and investors are making specific requirements for disclosure (Malaysia-specific)

Regulators

Regulation

Bank Negara Malaysia

Financial institutions regulated by BNM are expected to work towards adopting stretch recommendations that are fully aligned with TCFD disclosures by end 2024.

Securities Commission Malaysia

Additional requirements for any existing or new funds who wishes to qualify as SRI fund or issuance of SRI Sukuk and SRI based requirements in their code

Bursa Malaysia

Bursa requires companies listed under the Main Markets to disclose common sustainability matters by 2023 and TCFD-aligned disclosure by 2025

Monetary Authority of Singapore

Guidelines to enhance fund management companies' and real estate investment trust managers' management of environmental risk.

Published Guidelines

Bank Negara Malaysia

- Implementation Guide for Value-based Intermediation
- Climate Change Taxonomy and Principle-Based
- Climate Risk Management and Scenario Analysis (Exposure Draft)
- TCFD Application Guide for Malaysian Financial Institutions
- 2024 Climate Risk Stress Testing Exercise (Discussion Paper)

Securities Commission Malaysia

- Guidelines on Sustainable and Responsible Investment Funds
- Guidelines on Issuance of Corporate Bonds and Sukuk to Retail Investors
- Malaysian Code of Governance (Articulates the board's accountability and integration of sustainability considerations in corporate strategy, governance and decision-making)
- Malaysian Code for Institutional Investors (Principle for sustainable investment)
- *Will be releasing the SRI Taxonomy by the end of this year*

Bursa Malaysia

- Sustainability Reporting Guide (3rd Edition)
- Sustainability toolkits, including: Governance, Materiality Assessment, Stakeholder engagement, Stakeholder prioritization, materiality matrix, management approach

Monetary Authority of Singapore

- Guidelines on Environmental Risk Management (Asset Managers)

Fully Integrating Climate Change Considerations into Business Plans will both Create and Defend Value

Create Value

Defend Value

Business benefits of evaluating climate-related risks and opportunities

Maximised Revenues

avoiding losses from climate events and creating new areas of products/services

Minimised Costs

reducing impact of additional energy and carbon costs

Enhanced access to capital

enhancing disclosure to meet financial stakeholders' expectations

Improved stakeholder trust

taking customers and investors on climate journey

Better strategy development

ensuring that all decisions are made in awareness of low carbon transition

Source: ERM

UN-convened Net-Zero Asset Owner Alliance

The UN-convened Net Zero Asset Owner Alliance (NZAOA) is a member-led initiative of institutional investors committed to transitioning their investment portfolios to net-zero GHG emissions by 2050 – consistent with a maximum temperature rise of 1.5°C. Commitments for participating asset owners:

- Commits to transition its investment portfolios to net-zero GHG emissions by 2050 consistent with a max temperature rise of 1.5C above pre-industrial levels
- Endorses and understands that this commitment must be embedded in a holistic approach to managing sustainability considerations, incorporating but not limited to climate change and must emphasize GHG emissions reduction outcomes in the real economy
- Will seek to reach this commitment, especially through advocating for, and engaging on corporate and industry action, as well as public policies, for LCET of economic sectors in line with science and under consideration of associated social impacts
- Make this commitment with the expectation that governments will follow through their own commitments to ensure the objects of the Paris Agreement are met

80 Members

The Alliance members are the finance industry's first to set intermediate targets, which include CO_2 reduction ranges for 2025 (22 – 32%) and for 2030 (49% – 65%)

$10.9 trillion AUM

44 members with set target

6 Members in APAC

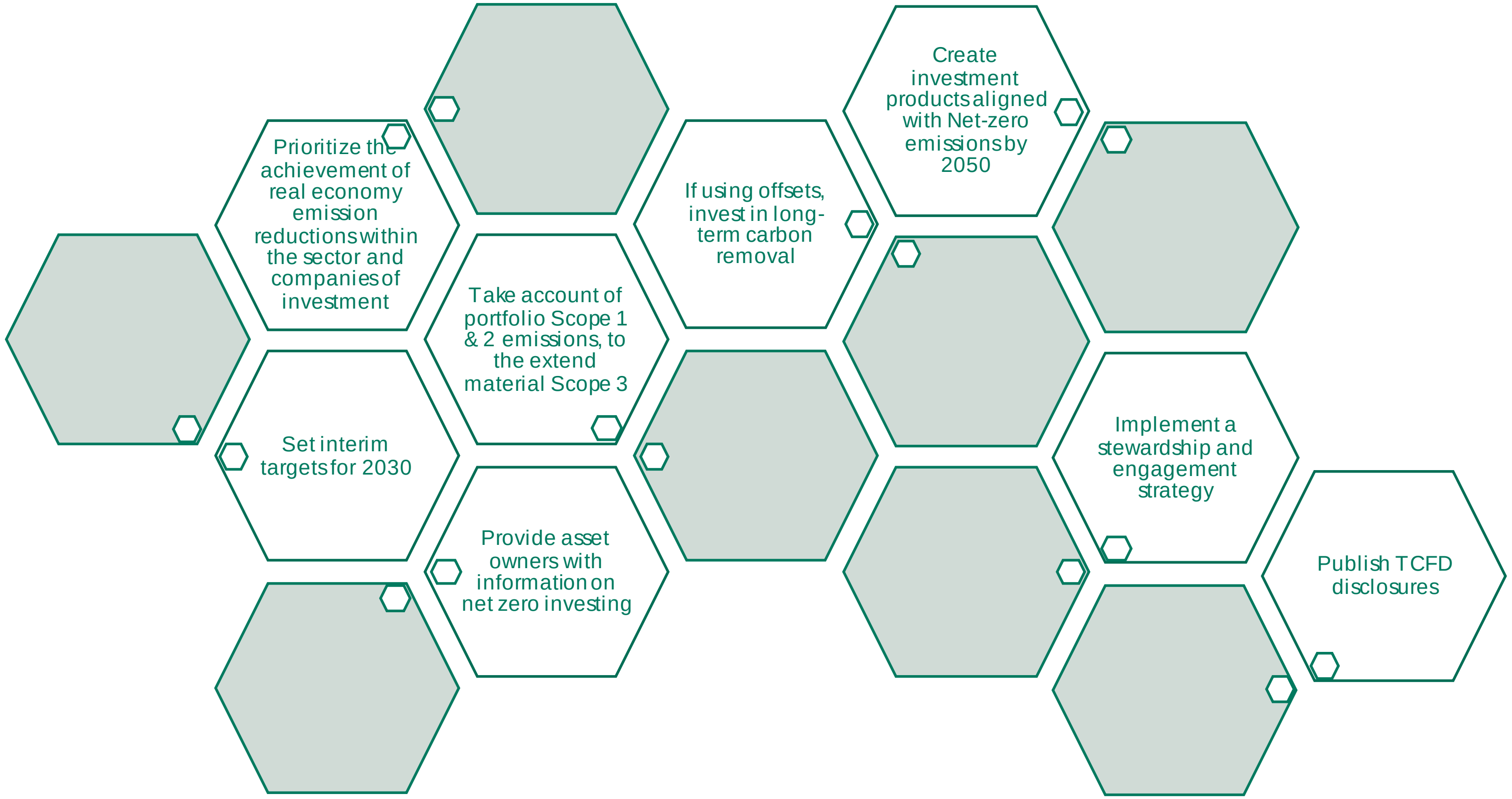
SOMPO HOLDINGS
By your side, for life DAI-ICHI LIFE Dai-ichi Life Group
NISSAY
QBE
MEIJI YASUDA
Empowering your future SUMITOMO LIFE

ERM

The Net Zero Asset Managers Initiative

The Net Zero Asset Managers Commitment

a. Work in partnership with asset owner clients on decarbonization goals, consistent with an ambition to reach net zero emissions by 2050 or sooner across all assets under management (‘AUM’)
b. Set an interim target for the proportion of assets to be managed in line with the attainment of net zero emissions by 2050 or sooner
c. Review our interim target at least every five years, with a view to ratcheting up the proportion of AUM covered until 100% of assets are included



The Net Zero Asset Managers initiative is an international group of asset managers committed to supporting the goal of net zero greenhouse gas emissions by 2050 or sooner, in line with global efforts to limit warming to 1.5 degrees Celsius; and to supporting investing aligned with net zero emissions by 2050 or sooner.

291 Signatories

Asset Managers have committed to achieve net zero alignment by 2050 or sooner, drawing on the Net Zero Investment Framework to deliver these commitments

$66 trillion in AUM trillion

Asset Manager capital confirmed as committed to net zero

*Figures are as of 9 November 2022

Session 2:
Beyond Policy Setting

Margie Ong

An asset owner's Climate Profile is critical towards decarbonisation

ASSET OWNER'S CLIMATE PROFILE

Corporate Level

Climate Strategy, Framework, Roadmap and Targets

- Baselining and Benchmarking
- GHG Inventory
- Goals and Targets
- Decarbonisation Plans
- Disclosure
- KPIs

Fund Level

Corporate-Aligned Purpose; Key Common Metrics

- FUND 1: Baselining and Benchmarking, GHG Inventory, Goals and Targets, Decarbonisation Plans, Disclosure, KPIs
- FUND 2: Baselining and Benchmarking, GHG Inventory, Goals and Targets, Decarbonisation Plans, Disclosure, KPIs
- FUND 3: Baselining and Benchmarking, GHG Inventory, Goals and Targets, Decarbonisation Plans, Disclosure, KPIs

Portfolio Level

Fund-Aligned Targets; Key Common Metrics

- PORTFOLIO COMPANY 1: Baselining and Benchmarking, GHG Inventory, Goals and Targets, Decarbonisation Plans, Disclosure, KPIs
- PC 2
- PC 3
- PC4
- PC 5
- PC 6
- PC 7
- PC 8

Relevant Frameworks

- GREENHOUSE GAS PROTOCOL
- SCIENCE BASED TARGETS
- PRI Principles for Responsible Investment
- SFDR
- TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES
- CDP
- GRI
- FTSE4Good
- B Lab

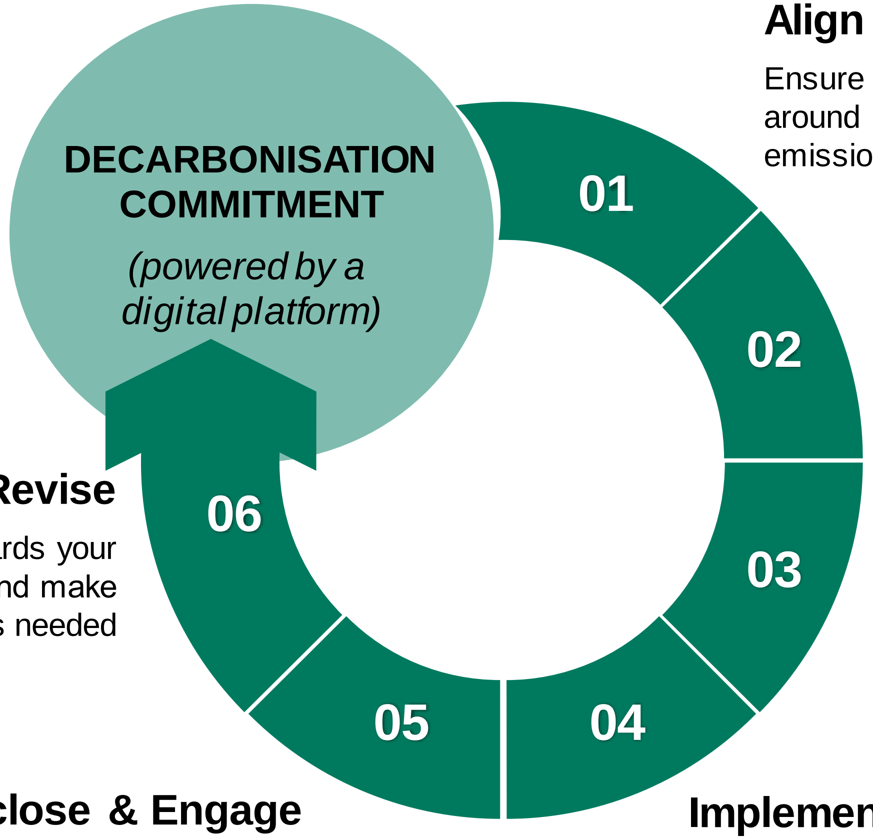
Other frameworks that are country or fund type specific may be relevant

ACTION

Building your climate profile

1. Determine your aspiration level
2. Determine your available data landscape
3. Create your preliminary Corporate Strategy and process roadmap
4. Select 1 pilot Fund and, within it, at least 2 pilot PCs
5. Build your Fund ESG Position and PC ESG Guidance
6. Revisit your Corporate Strategy; Build a Roadmap to completion with clear milestones and targets; Chip away at the mountain of work ahead!

PC-level ownership is needed for company-level decarbonisation



Align & Prioritize

Ensure your leadership team are aligned around the commitment to climate; prioritize emission intensive activities

Emissions Baseline

Develop robust emissions inventory and 'business as usual' trajectory

Target & Plan

Set your company's decarbonisation target pathway and define the strategy to achieve it.

Implement & Fund

Deliver funded plans for operational leaders to implement across your enterprise

Disclose & Engage

Create meaningful disclosures and engagement for stakeholders

Review & Revise

Assess progress towards your company's goals and make adjustments as needed

Source: ERM Analysis

A few key metrics will allow you to understand and manage your climate impact for a fund

METRIC	USE CASE	PROS AND CONS	
Total financed emissions	To set baselines and track emissions evolution	+ Easily applied + Tracks absolutes over time	- Comparisons difficult, not normalised - Enterprise value can impact
Carbon footprint	To compare portfolios and perform company attributions	+ Can compare + Link between ownership and emission	- Does not consider efficiency - Enterprise value can impact
Carbon intensity (revenue)	To evaluate exposure to carbon-intensive companies	+ Reflects size + Reflects carbon efficiency	- Sensitive to product price fluctuation - Sensitive to outliers
Carbon intensity (physical)	To perform sector-specific deep-dive analyses	+ Direct link to production + Independent of pricing + Considers size and efficiency	- Factors sector-specific, cannot compare - Not suitable for sectors with wide product mix

Source: JP Morgan

Five key steps to remember in your corporate roadmap towards net zero

1. Footprint first

- Define **organizational** and **operational boundaries**
- Ensure to capture a comprehensive **assessment** of the organization's **value chain**
- Use this process as an opportunity to **strengthen relationships** with **suppliers** and other stakeholders

2.Know Your End Goal

- Use a **well-established methodology**
- Select relevant **global frameworks**
- Keep abreast with **market developments**
- **Benchmark** quickly and often

3.Less Energy, Less Carbon

- Undertake **energy audits**
- Use **analytical tools** to quantify emissions and cost savings and calculate pay pack periods
- Expand **energy efficiency initiatives** into the **supply chain** and other parts of the value chain
- **Explore partnerships** to increase knowledge sharing

4.Choose Low Carbon Power

- Map your company's **energy requirements**
- **Switch** to **renewable** power where possible
- **Long-term power purchasing agreements**
- **Electrify transport** fleets
- Join **coalitions** of energy buyers and other collaborations to **advocate** for changes in the grid and energy market

5.Remove Remaining Carbon

- **Identify** operational **processes** most likely to **require Carbon Capture Utilization Storage (CCUS)** solutions to reduce emissions
- **Review technology options**,
- Look for potential **technology and financing partners**
- Develop a clear **stakeholder engagement plan** to ensure you have buy-in from critical individuals and groups

Source: ERM Analysis

Session 3: Understanding Emissions

Kee Vern Lai

Five essential steps for corporate climate action

Covered Today

1. Measure your **GHG inventory baseline**
2. Define an **emission reduction goal with** clear science-based interim targets
3. Develop **cost effective emissions** reductions pathway
4. **Assess and integrate climate risks** into business and financial planning
5. **Public disclosure** – and integration into TCFD

Overview of Key GHG Frameworks

The following **international frameworks and standards for GHG accounting and target setting** are the most widely used globally and are seen as best practice.

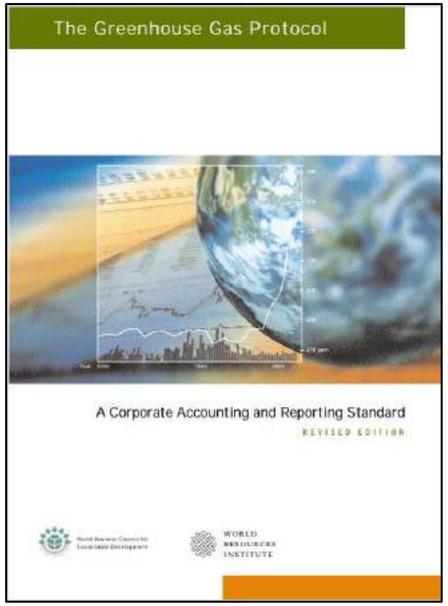
GREENHOUSE GAS PROTOCOL

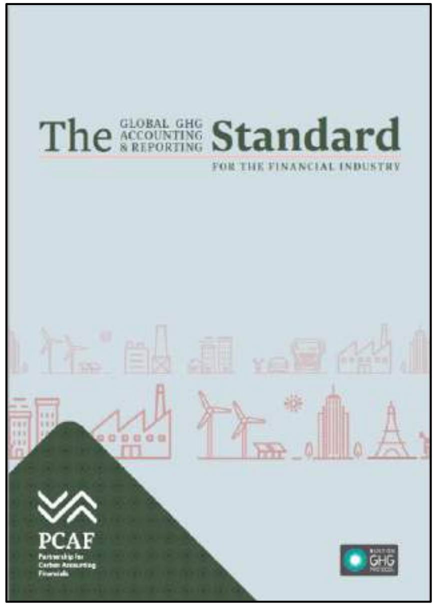
PCAF Partnership for Carbon Accounting Financials

initiative climat international
Private equity action on climate change

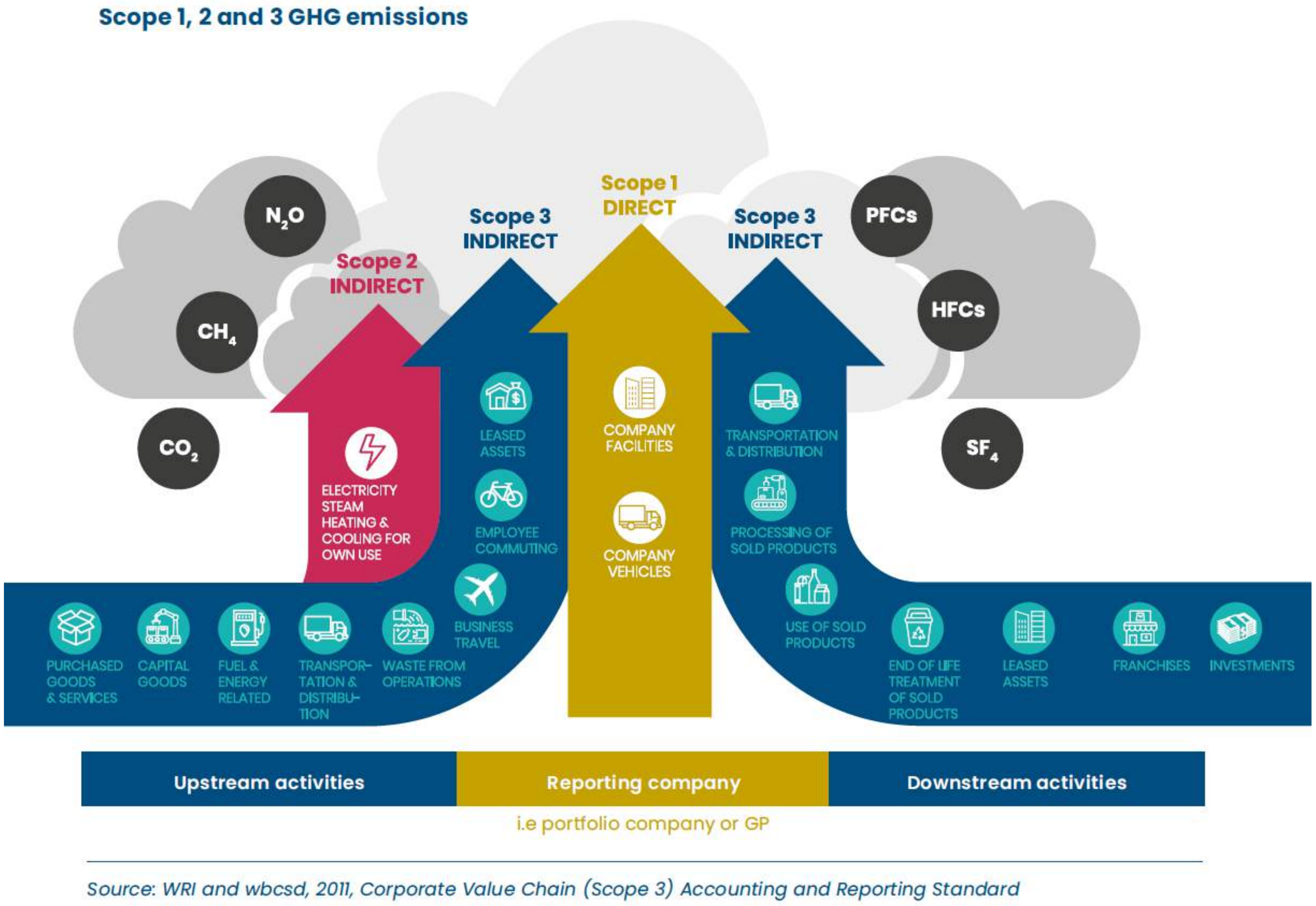
ERM

ISO

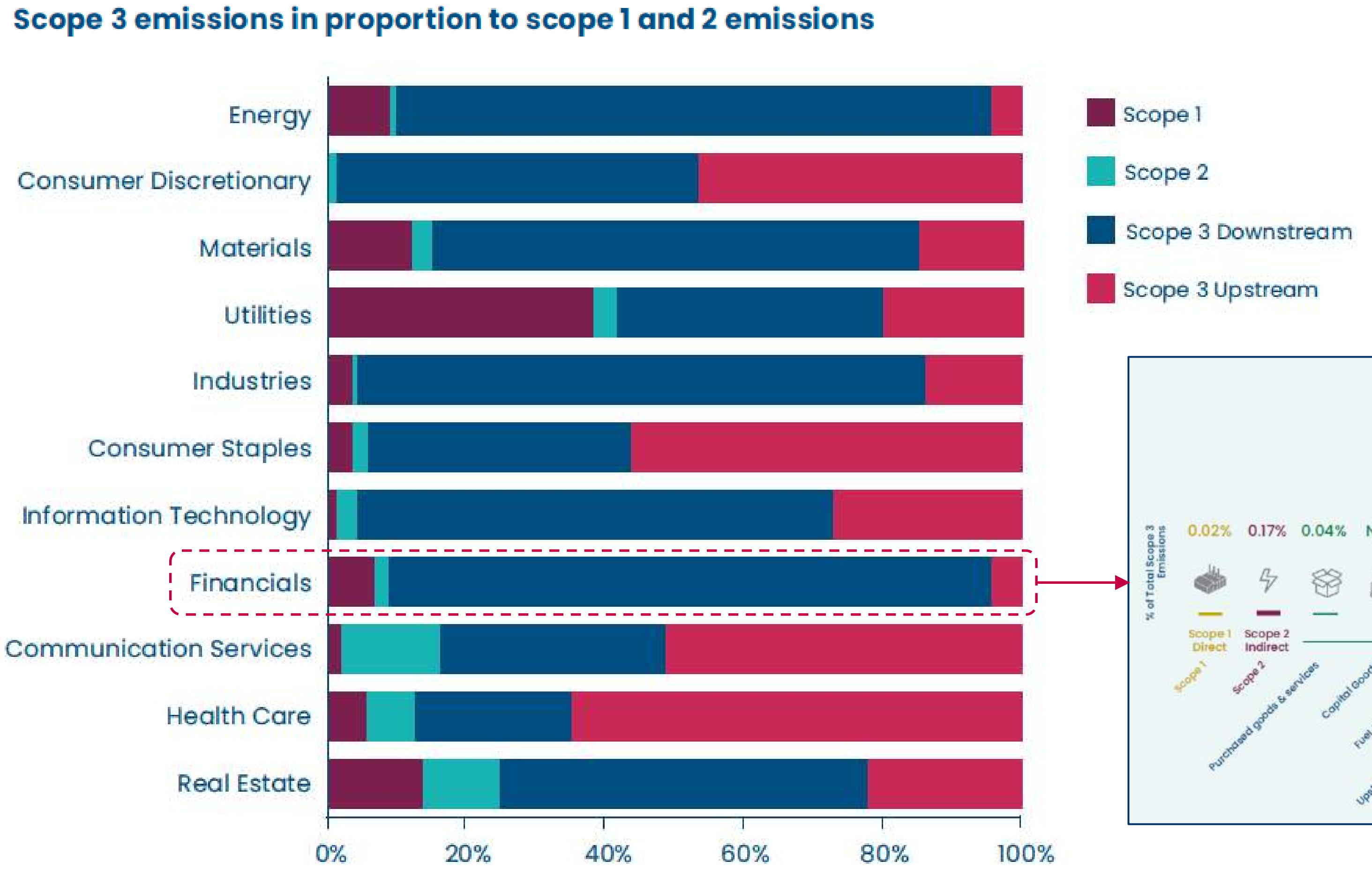




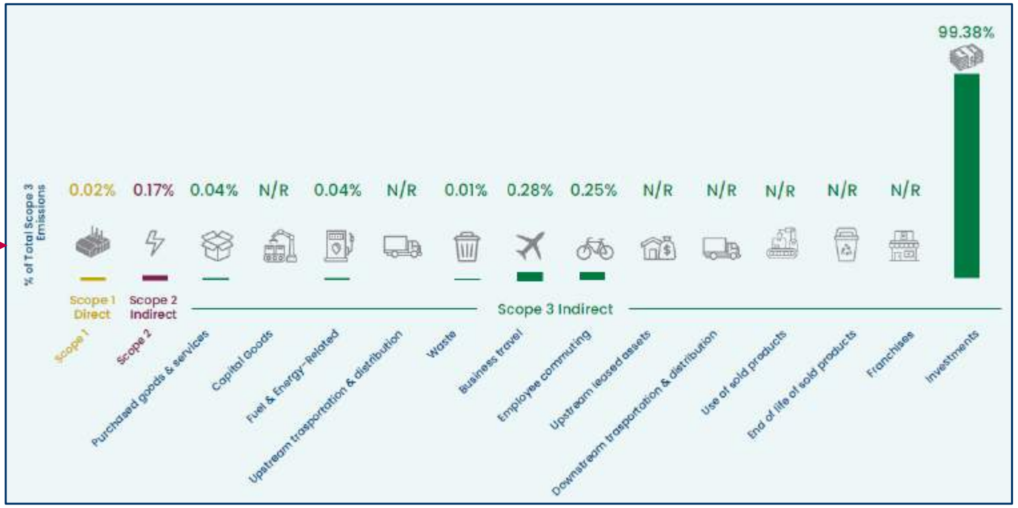
Approaches to set Operational Boundaries



Scope 3 Category 15 (Investments) accounts for a large proportion of total emissions in the financial sector.



GREENHOUSE GAS PROTOCOL



Source: *Allianz Global Investors, 2021, Are all net-zero goals created equal?*

Approaches to set Organizational Boundaries

The guidance developed by PCAF requires financial institutions to use a CONTROL approach.

GREENHOUSE GAS PROTOCOL

According to the GHG protocol standard, there are two main types of approaches towards setting organizational boundaries for companies globally.

Control Approach

Operational: A company accounts for **100%** of GHG emissions from **operations** over which it has operational control over. **It does not account** for GHG emissions from operations in which **it owns an interest but has no control**.

Financial: Company accounts for **100%** of GHG emissions from operations which it has **financial** control over.

Equity Share Approach

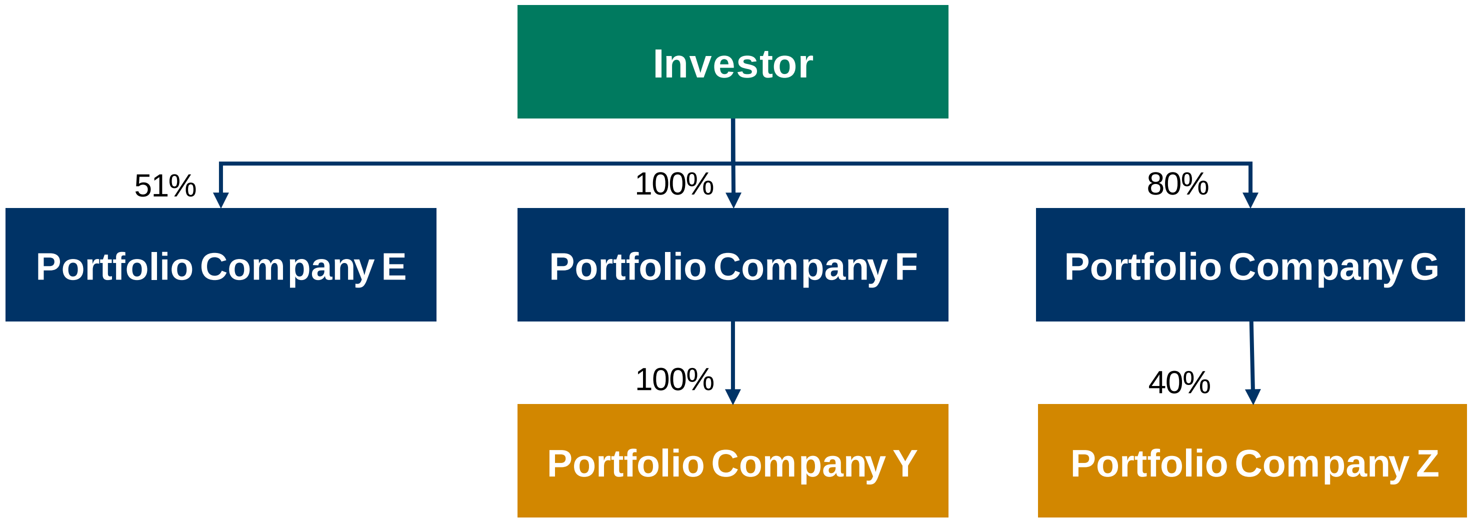
A company **accounts for GHG emissions** from operations **according to its share of equity** in the operation.

The equity share reflects economic interest, which is the extent of rights a company has to the **risks and rewards** flowing from an operation.

Boundary Setting Example

Operational/ Financial Control & Equity Share

Scenario: Investor has **operational control** over portfolio companies which it has **>50% economic interest**.



Operational/ Financial Control

Scope 1 & 2:

- 100% GHG emissions of Portfolio Company E + F + G + Y

Scope 3:

- 100% of Scope 3 emissions of Portfolio Company E + F + G + Y
- 40% of Portfolio Company Z's Scope 1 & 2 GHG emissions under Category 15 Investments

Equity Share

Scope 1 & 2:

- 100% GHG emissions of Portfolio Company F + Y
- 51% of Company E
- 80% of Company G
- 32% of Company Z

Scope 3:

- Scope 3 emissions of assets listed above based on equity

How are Scope 1 & 2 GHG Emissions Calculated?

GHG emissions are calculated using Emission Factors (EFs) & Global Warming Potentials (GWP).

$$Emissions_{GHG\ Type} = Activity\ Data \times EF \times GWP$$

Using values published by the Intergovernmental Panel on Climate Change (IPCC)

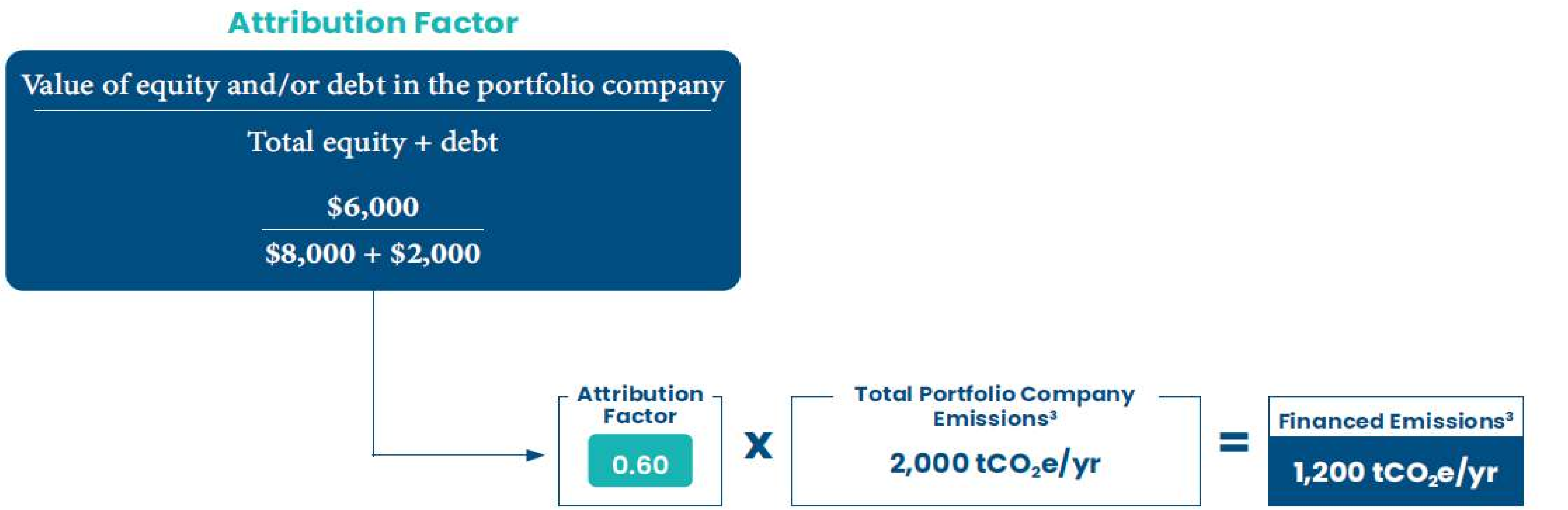
Provided by the client

Recommended by the consultant

	GWP Values (100-yr Horizon)	
GHG	**AR5**	**AR6**
CO2	1	1
CH4	28	27.9
N2O	265	273

Scope 3 Category 15: Financed Emissions

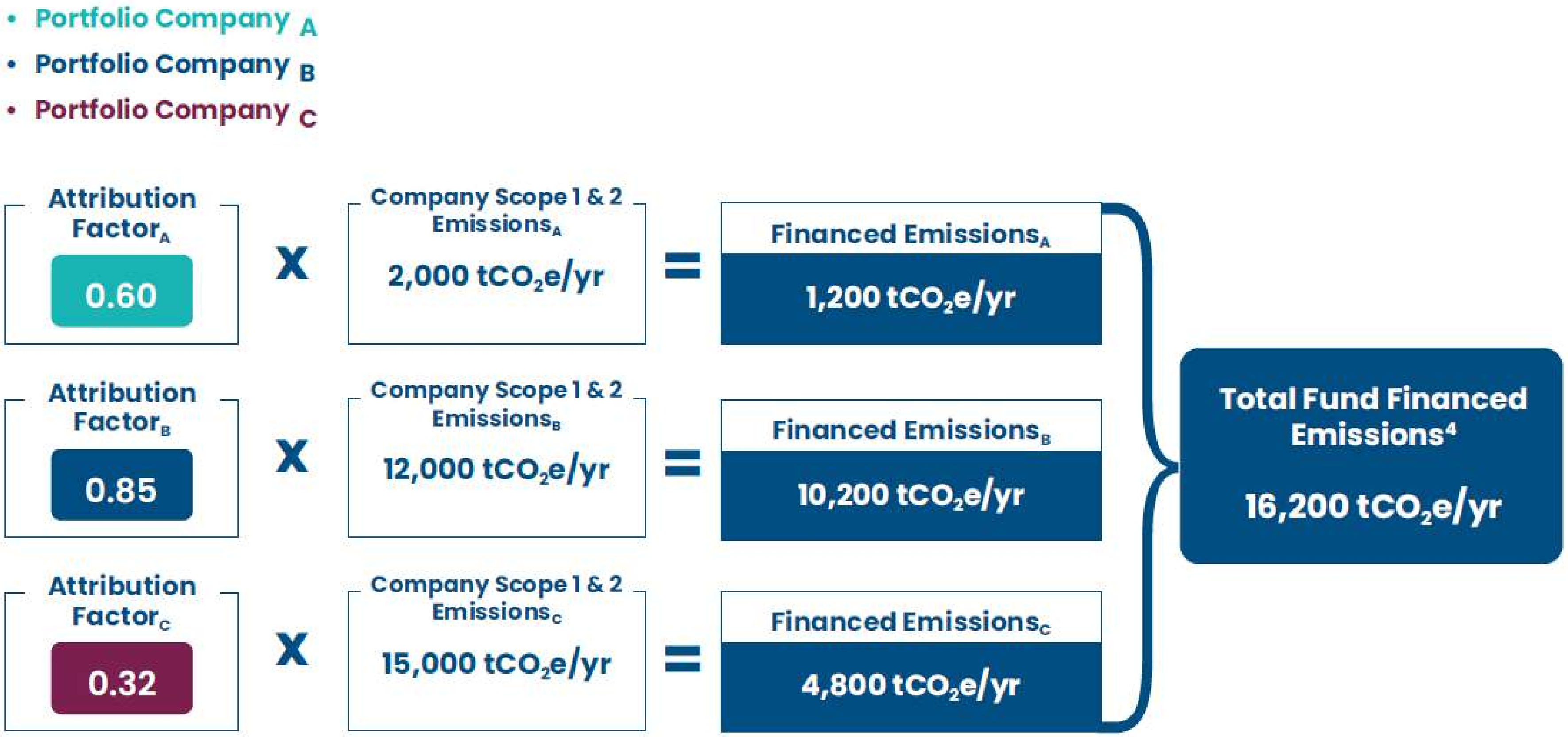
*When calculating **financed emissions**, investors attribute only a share of the GHG emissions of their portfolio companies as part of their financed emissions.*



[3]Scope 1 and 2 emissions. The same process should be untertaken for scope 3 emissions should this data be obtained and reported.

Source: *Greenhouse Gas Accounting and Reporting for the Private Equity Sector*

Financed Emissions are consolidated based on the respective attribution factors for each portfolio company.



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Session 3: Q&A