SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Addressing the impact of ongoing emissions – beyond value chain mitigation (BVCM)

EWG virtual session III on 3rd June

"How much is enough"

Presentation deck

Alice Farrelly & Scarlett Benson

Introduction | Our goal for today is to refine the overall approach for determining "how much is enough", while considering tensions between responsibility to pay and feasibility

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Today's questions	… and outcomes
1. **How to determine a science-based approach for responsibility for addressing ongoing emissions?**	Establish a shared baseline understanding of the ongoing emissions responsibility ratio (**OERR**)
2. **How can we integrate a science-based approach for responsibility for addressing ongoing emissions whilst still incentivizing harder-to-measure systemic outcomes?**	Refined approach for responsibility framework
3. **How to balance the tension between responsibility to pay and feasibility?**	Refined approach on whether, and,how to adjust for ability to pay

Reminder of our fellow EWG members

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- current or future prices, pricing strategies, or price related information;
- output, capacity, inventory levels, or costs;
- data related to market share;
- current or future business model transformation strategies.

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- As per the EWG Terms of Reference and the SBTi COI policy, conflicts of interest must be declared
- At the start of each meeting the chair will ask members if a new COI has arisen
- A Conflict of Interest may be:
  - Actual: A true conflict exists between a Party's duties with the SBTi and their private interests.
  - Potential: Where a Party has personal or private interests that could conflict with their duties with the SBTi, or where it is foreseeable that a conflict may arise in future.
  - Perceived: Where an unbiased observer could reasonably form the view that a Party's private interests could influence their decisions or actions.

ARE THERE ANY COI THAT THE SBTi SHOULD BE AWARE OF?

VIDEO-CONFERENCE GUIDELINES

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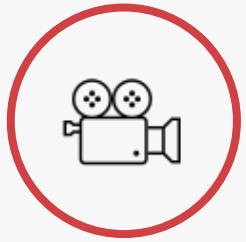
Participant guidelines

Mute during presentations

Use the chat box

Use the raise hand function



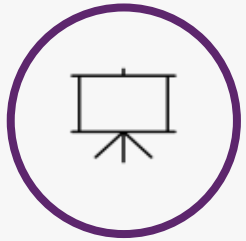
If you can, please keep your camera on

Notes from us

Treat info as confidential

Meeting is being recorded

We will follow up with minutes…



..And we will follow up with slides!

Finally, please have your devices ready to use…

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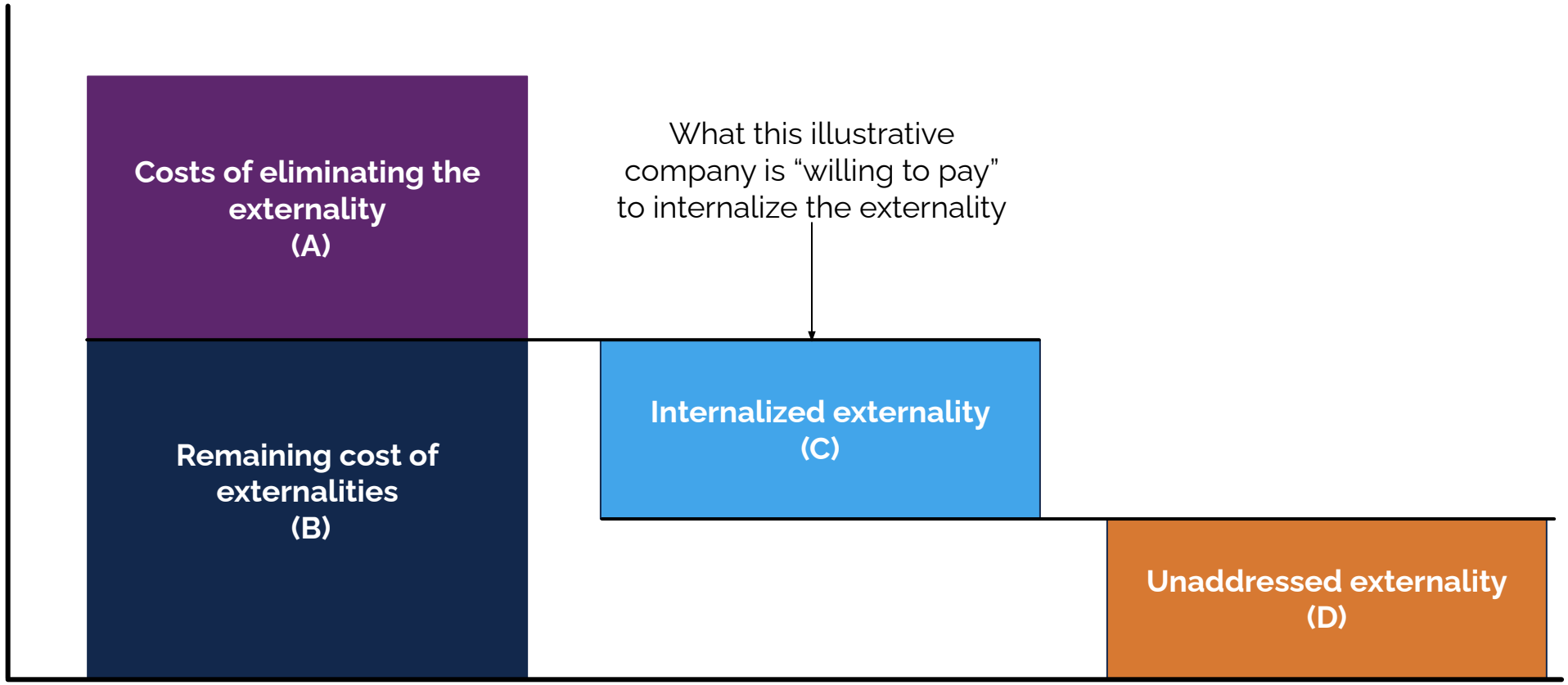
AGENDA

SBTi team presentation: Pre-read recap	25 min
Questions and comments on pre-read	15 mins
Responsibility frameworks and feasibility	35 min
Ability to pay	40 min
Closing & next steps	5 min

The SBTi's previous work on "how much": an "externality framing"

Climate costs of a company's GHG emissions



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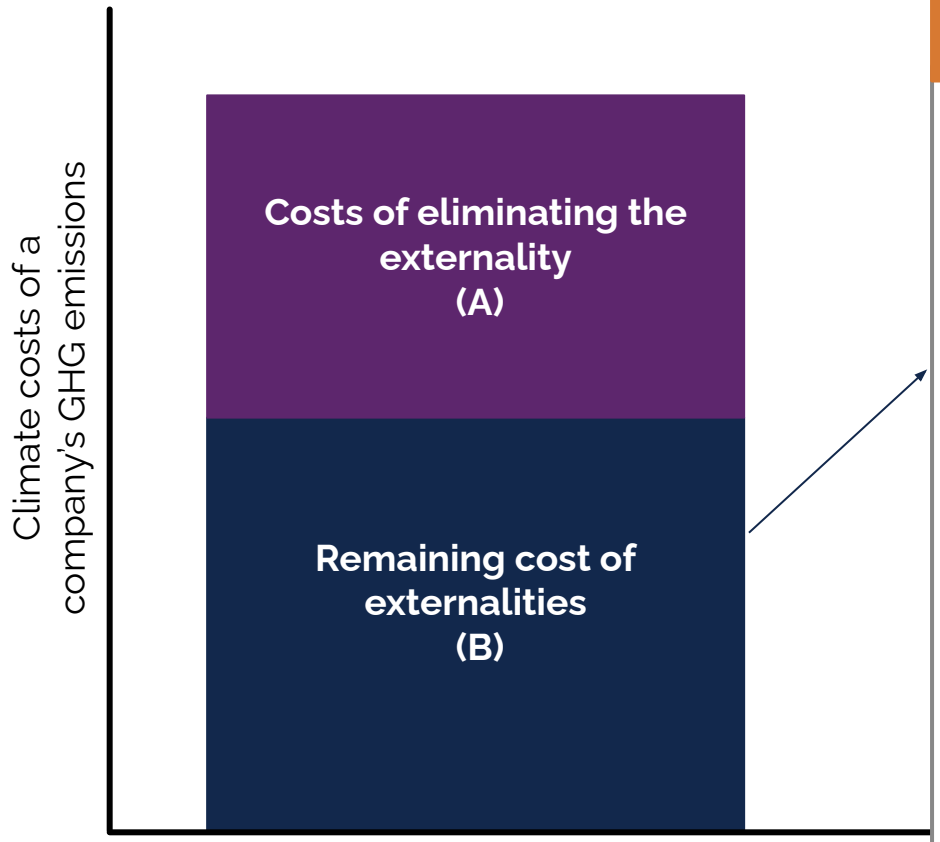
SBTi's current best practice approach follows the polluter pays principle by recommending company apply a science-based carbon price to 100% of ongoing emissions



Apply a science-based carbon price to unabated scope 1, 2 and 3 emissions to determine a financial budget

Science-based carbon price × Scope 1, 2 and 3 emissions = Financial budget

Companies should use this budget to….

- Deliver ex-post BVCM outcomes equivalent to 50% of unabated scope 1-3 emissions (i.e. 50% ton-for-ton).
- Use the remaining budget to fund a chosen combination of:
  - Additional ex-post BVCM outcomes;
  - The scale up of nascent climate solutions and enabling activities;
  - Adaptation and/ or loss and damage.

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The SBTi research team has continued to explore what constitutes a science-based level of ambition for addressing ongoing emissions...

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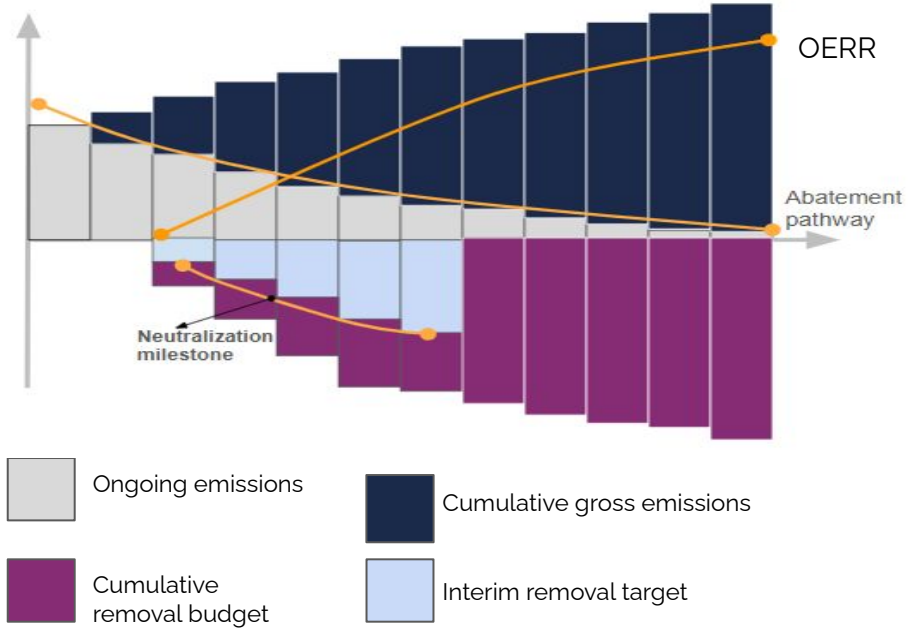
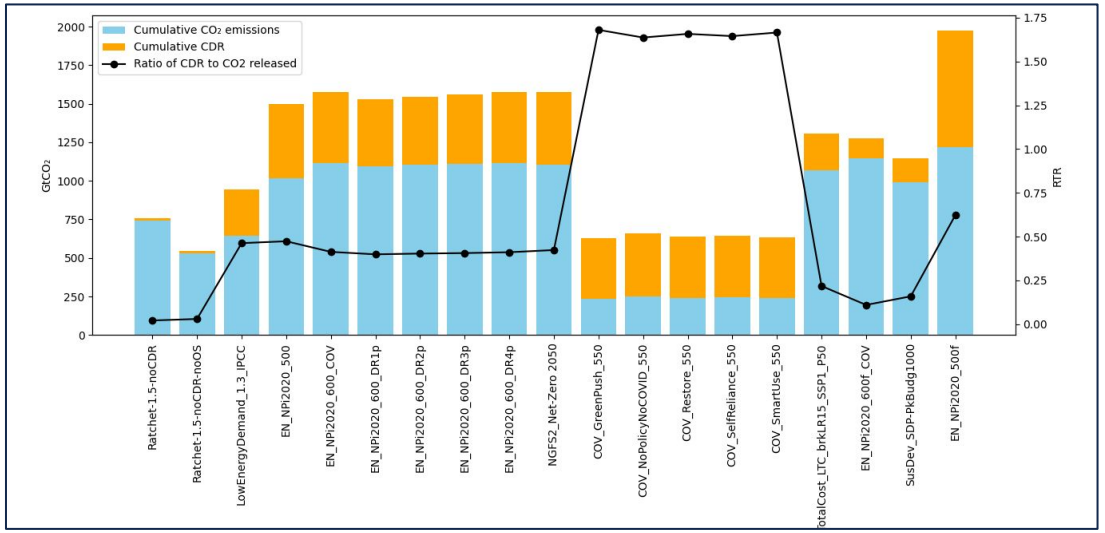
Using concept of a finite, science-based global carbon budget, the team has developed the Ongoing Emissions Responsibility Ratio (OERR). It allocates to companies a fair-share responsibility for addressing their ongoing unabated emissions – those that occur during the transition to net-zero but are not yet reduced or removed.



When we apply this concept to IPCC AR6 C1 scenarios...



- For the set of filtered scenarios that stay within sustainable limits (Figure: left), the ratio between carbon removed and carbon released into the atmosphere, until the end of the century ranges from 0 to 1.8
- The **median OERR value across the scenarios is 0.4.** This estimate accounts for all ongoing emissions, including residual emissions.
- This means that for every 1 tCO2e of ongoing emissions, a company is responsible for at least 0.4 tCO2e of measurable mitigation outcomes – over and above its value chain emissions reductions.
- *Additional research is being conducted to update the OERR to reflect ongoing CO_2 emissions, excluding residuals, and also to cover all GHG emissions.*

$$\textit{Ongoing emissions responsibility ratio(y)} = \frac{\textit{Cumulative removal budget(y)}}{\textit{Cumulative gross emissions(y) - Residual emissions (2050)}}$$

Note: *This slide was originally presented during meeting Option A (09:00–11:00 BST). Following discussion with EWG members during that session, the content was revised to enhance clarity ahead of Option B (15:00–17:00 BST). Please refer to the following slide for the updated version.*

The SBTi research team has continued to explore what constitutes a science-based level of ambition for addressing ongoing emissions...

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Problem 1: Even the most ambitious net-zero pathways involve overshoot

Our cross-sector pathway targets net-zero emissions by 2050, in line with the most ambitious scenarios from the IPCC. However, even these pathways involve a median peak temperature overshoot of ~0.1–0.3˚C above 1.5˚C around mid-century. In these scenarios, carbon removals after 2050 are critical to bring temperatures back down toward 1.5˚C in the second half of the century.

Problem 2: The carbon budget may already be exceeded

Most IPCC pathways were developed based on emissions trajectories as of 2020. They do not fully account for higher-than-expected global emissions between 2020 and 2024. Emerging evidence suggests that the remaining carbon budget for 1.5˚C may already be exhausted, which implies that even these "most ambitious" scenarios may underestimate the degree of required course correction.

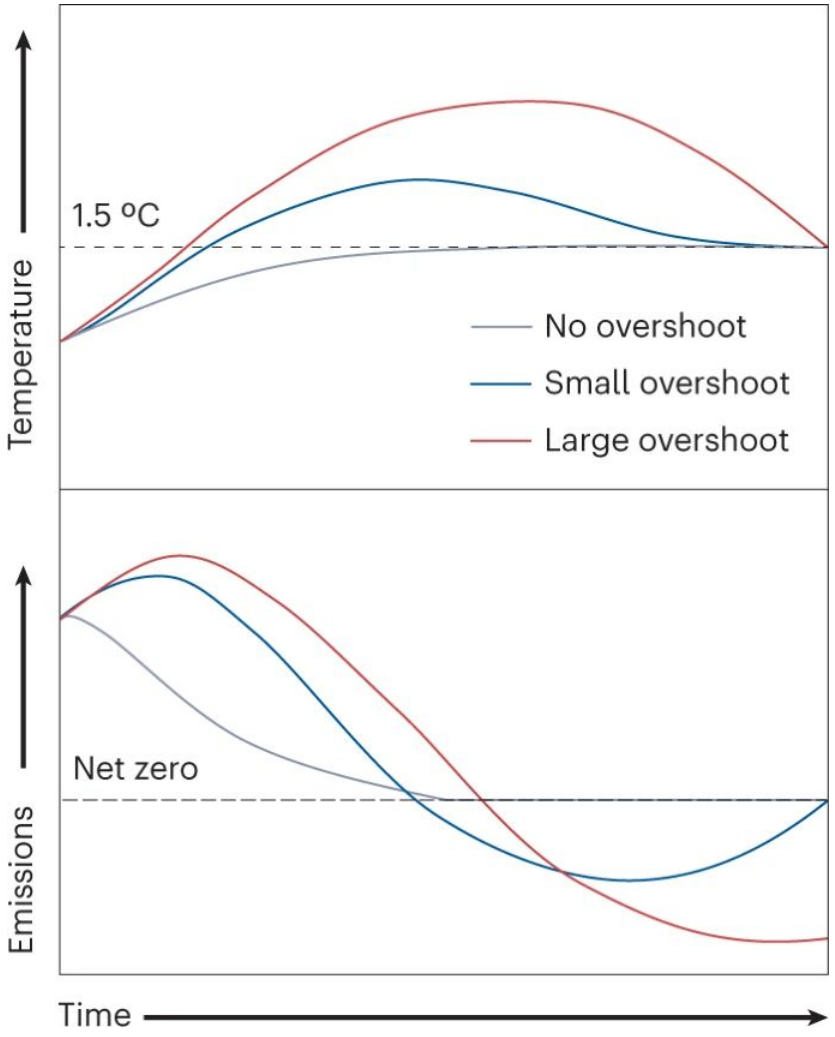


Figure source: https://www.nature.com/articles/s41561-023-01213-3

Implication: Delayed removals are necessary, but not sufficient

Post-2050 removals are necessary to address overshoot, but opportunities still exist to reduce or avoid overshoot altogether. Advancing removals and/or accelerating reductions before 2050 can help reshape the temperature trajectory and reduce risks associated with overshoot duration and magnitude.

Responsibility for Ongoing Emissions: A proactive role for companies

While companies are not directly responsible for the global overshoot, they can contribute meaningfully to addressing it by taking responsibility for ongoing emissions through delivering emissions reductions and removal beyond the value chain.

We have developed the Ongoing Emissions Responsibility Ratio to establish responsibility. The median ratio across scenarios is 0.4, meaning that **for every 1 tCO2e of ongoing emissions, a company is responsible for at least 0.4 tCO2e of measurable mitigation outcomes** – over and above its value chain emissions reductions.

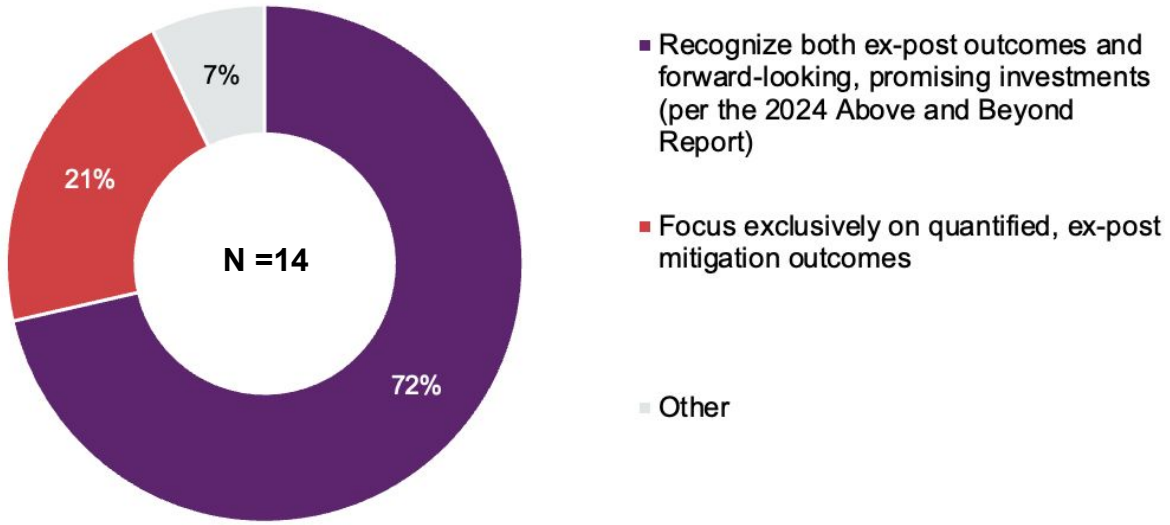
Note: *Updated slide presented during Option B (15:00–17:00 BST) to improve clarity.*

The ongoing emissions responsibility ratio has important implications for both “what counts” and “how much”….

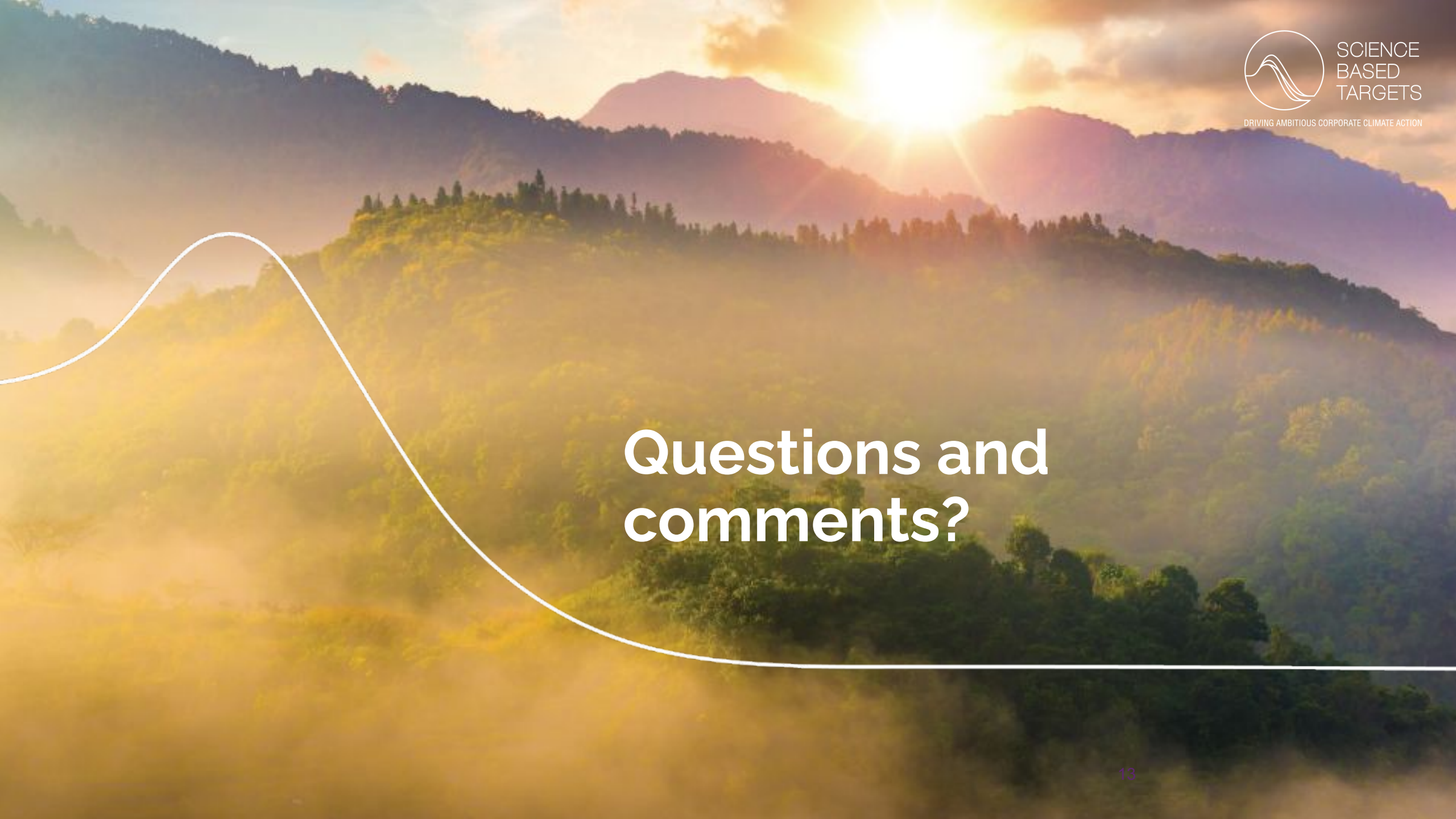
As its design is based on carbon-budget logic, the ratio focuses on measurable outcomes and therefore limits the scope of what can “count “ toward BVCM.

In previous follow-up surveys, the EWG has indicated support for both ex-post and forward looking investments to be recognized for addressing ongoing emissions.

A key question for the EWG is therefore, how can the SBTi framework for determining “how much” maintain integrity and the budget-based approach while also incentivising the investments and innovation needed to unlock systemic change.



Source: EWG Session 1 follow-up survey results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Questions and comments?

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AGENDA

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How to integrate science-based responsibility and continue to incentivize harder-to-measure systemic outcomes? The pre-read proposed a tiered recognition approach…

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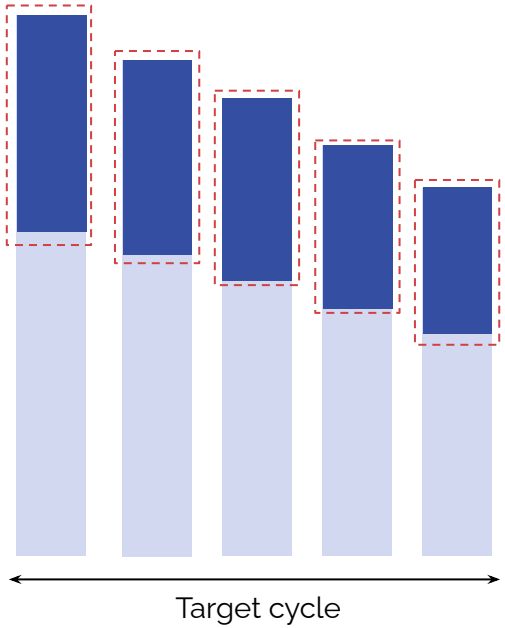
Option 1: Tiered recognition

Set ex-post verified mitigation in-line with the **Ongoing Emissions Responsibility Ratio** as SBTi's **minimum recognition tier:**



40% Deliver ex-post, verified mitigation inline with the Ongoing Emissions Responsibility Ratio, i.e. equivalent to 40% of ongoing emissions.

Tier 2 recognition (additional)

60% Apply a science-based carbon price to remaining emissions to fund a diversified portfolio of high-integrity climate contributions

Minimum required responsibility coverage for recognition under each option. Bars on chart reflect total ongoing emissions i.e. scopes 1-3

Tier 1 proposed as a prerequisite for tier 2 recognition..
But could this stepped approach disincentivize harder-to-measure systemic outcomes i.e.
Is there a risk with companies would stop at tier 1 and not pursue additional,Tier 2 recognition?

Other approaches that integrate science-based responsibility while still incentivizing harder-to-measure systemic outcomes…

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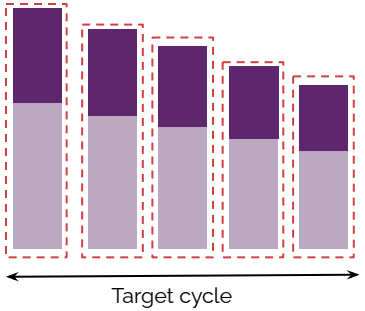
Option 2: Require 100% of ongoing emissions to be addressed for SBTi recognition

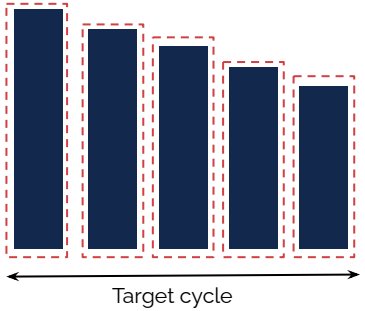


40% Deliver ex-post, verified mitigation inline with the Ongoing Emissions Responsibility Ratio, i.e. equivalent to 40% of ongoing emissions.

+

60% Apply a science-based carbon price to remaining emissions to fund a diversified portfolio of high-integrity climate contributions

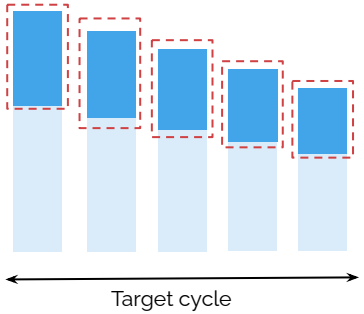
Option 3: Integrate Ongoing Emissions Responsibility Ratio into current best-practice guidance



100 % Apply a science-based carbon price to 100% of ongoing emissions to set determine a financial budget.

- ➔ Use a portion of this budget to deliver for ex-post verified mitigation equivalent to 40% of ongoing emissions (per the Ongoing Emissions Responsibility Ratio);
- ➔ Allocate the rest to high-integrity climate contributions.

Option 4: Recognize either TfT or MfT approach in line with the Ongoing Emissions Responsibility Ratio



40% ***TfT*** Deliver ex-post, verified mitigation inline with the Ongoing Emissions Responsibility Ratio, i.e. equivalent to 40% of ongoing emissions

OR

40% ***MfT*** Apply a science-based carbon price to 40% of ongoing emissions to fund a diversified portfolio of high-integrity climate contributions

Pros and cons

✓ Both Goal 1 and Goal 2 are incentivized

x High bar for recognition (& associated cost) would create a barrier to uptake
x Similar but different to Above & Beyond best practice approach - could cause confusion

✓ Continuity with Above & Beyond best practice approach
✓ Both Goal 1 and Goal 2 are incentivized

x High bar for recognition (& associated cost) would create a barrier to uptake

✓ Lower bar for recognition means less cost to companies

x "*Either or*" approach means Goal 2 is not incentivized as companies will likely go for the least costly option (TfT)

Minimum required responsibility coverage for recognition under each option. Bars on chart reflect total ongoing emissions i.e. scopes 1-3

Let's do a temperature check menti-poll

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Mentimeter

Which of the responsibility framework options do you prefer?

Join us on Mentimeter!

Link:
https://www.menti.com/albxnyy5jsih

QR:

These different options could entail significantly different costs for different businesses [slide 1/2]

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Company A : Food and beverage company

- Total ongoing emissions: 16.5 million tCO_2e
  - Scope 1+2 emissions: 1.5 million tCO_2e
  - Scope 3 emissions: 15 million tCO_2e
- Profit in the reporting year: $8 billion
- Profit per ton: 485 $\$/tCO_2e$

Company B : Technology company

- Total ongoing emissions: 10.5 million tCO_2e
  - Scope 1+2 emissions: 500k tCO_2e
  - Scope 3 emissions: 10 million tCO_2e
- Profit in the reporting year: $70 billion
- Profit per ton: 6667 $\$/tCO_2e$

Company C : Mining company

- Total ongoing emissions: 600 million tCO_2e
  - Scope 1+2 emissions: 30 million tCO_2e
  - Scope 3 emissions; 570 million tCO_2e
- Profit in the reporting year; $12 billion
- Profit per ton: 20 $\$/tCO_2e$

These different options could entail significantly different costs for different businesses [slide 2/2]

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Carbon-price assumptions: TfT $ per ton: $10; Science-based cabron-price: $100

		Company A *profit per ton: 485 $/tCO$_2$e*	**Company B** *profit per ton: 6667 $/tCO$_2$e*	**Company C** *profit per ton: 20 $/tCO$_2$e*
1	**"Tiered recognition"**	*Tier 1*: **$66 million cost** *Tier 1:* **0.8 % of profit** *w/ Tier 2: As option 2*	*Tier 1*: **$42 million cost** *Tier 1:* **0.06 % of profit** *w/ Tier 2: As option 2*	*Tier 1*: **$2.4 billion cost** *Tier 1:* **20 % of profit** *w/ Tier 2: As option 2*
2	**"Full responsibility for recognition"**	**$1.1 billion cost** **13.2% of profit**	**$672 million cost** **0.96% of profit**	**$38.4 billion cost** **320% of profit**
3	**"Integrate to current best practice"**	**$1.65 billion cost** **20.6% of profit**	**$1.05 billion cost** **1.5% of profit**	**$60 billion cost** **500% of profit**
4	**"Either TfT or MfT"**	*TfT:* **$66 million cost** *TfT:* **0.8 % of profit** *MfT:* **$660 million** *MfT:* **8.3% of profit**	*TfT:* **$42 million cost** *TfT:* **0.06 % of profit** *MfT:* **$420 million cost** *MfT:* **0.6% of profit**	*TfT:* **$2.4 billion cost** *TfT:* **20 % of profit** *MfT:* **$24 billion cost** *MfT:* **200% of profit**

Note: *All figures are annual*

REMINDERS OF DEFINITIONS!

- Company A : Food and beverage company with 1.5 million tCO_2e of scope 1 and 2; 15 million tCO_2e scope 3; $8 billion profit in the reporting year.
- Company B : Technology company with 500 thousand tCO_2e of scope 1 and 2; 10 million tCO_2e scope 3 emissions; $70 billion profit in the reporting year.
- Company C : Mining company with 30 million tCO_2e of scope 1 and 2; 570 million tCO_2e scope 3 emissions; $12 billion profit in the reporting year.

- "Tiered recognition": Deliver TfT mitigation equivalent to 40% of ongoing emissions on. For additional Tier 2 recognition, apply carbon price to remaining (60%) ongoing emissions to fund climate contributions.
- "Full responsibility for recognition": Deliver TfT mitigation equivalent to 40% of ongoing emissions AND apply carbon price to remaining (60%) ongoing emissions to fund climate contributions
- "Integrate to current best practice": Carbon price 100% ongoing emissions, fund 40% TfT equivalent and remainder for other climate contributions.
- "Either TfT or MfT": Either deliver TfT mitigation equivalent to 40% of ongoing emissions OR apply a science-based carbon price to 40% of ongoing emissions to determine contribution budget.

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AGENDA

SBTi team presentation: Pre-read recap	25 min
Questions and comments on pre-read	15 mins
Responsibility frameworks and feasibility	35 min
Ability to pay	40 min
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Two potential approaches to adjust for ability to pay…

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Variable-based Adjustment

Adjust the variables that define financial contribution levels at layers that reflect differing abilities to pay.

Adjustable variables:

$ Carbon price

Emissions coverage

Possible adjustment layers:

- By sector (sectoral benchmarks)
- By emissions profile
- By company size
- By profit per tCO_2e

Example mechanisms:

- Variable carbon price based on company profit-per-ton
- Differentiated emissions coverage and/or carbon-price requirements by sector
- Cost basis: pure science-based carbon price vs adjusted (e.g. abatement cost-based).

Design-based Approach

Design differentiated ambition tiers or recommendations within the Standard.

Designs could be:

Low bar + tiered ambition

Minimum floor + best practice recommendation

- Minimum threshold to drive broad adoption
- Higher tiers / recommendations reflect alignment with the ongoing emissions responsibility ratio.
- Allows market signaling for leadership while lower tiers can incentivize broad adoption.

Example mechanisms:

- Minimum threshold could be full transparency (no thresholds) ; X% of profit contributed, or minimum floor carbon price
- Top tier / recommendation could be full science-based alignment based on responsibility framework (i.e options 1-4).

Two potential approaches to adjust for ability to pay…

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Variable-based Adjustment

Adjust the variables that define financial contribution levels at layers that reflect differing abilities to pay.

Adjustable variables:

- $ Carbon price
- By profit per tCO_2e

Example mechanisms:

- Variable carbon price based on company profit-per-ton
- Differentiated emissions coverage and/or carbon-price requirements by sector
- Cost basis: pure science-based carbon price vs adjusted (e.g. abatement cost-based).

In the variable-based adjustment approach, the **standard itself is adjusting ambition of the financial contribution** for the company based on an **external judgment of their ability to pay** (e.g. via profit-per-ton brackets or sectoral assumptions).

Design-based Approach

Design differentiated ambition tiers or recommendations within the Standard.

Designs could be:

- Low bar + tiered ambition

lower tiers can incentivize broad adoption.

Example mechanisms:

- Minimum threshold could be full transparency (no thresholds) ; 1% of profit contributed, or minimum floor carbon price
- Top tier / recommendation could be full science-based alignment based on responsibility framework (i.e options 1-4).

In **design-based approach**, the company is **self-selecting** the **ambition level** (tier). Their choice will naturally be influenced by their ability to pay but the standard isn't dictating that for them.

What might a variable-based adjustment look like in practice….

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Variable-based Adjustment: Illustrative example

- **Framework:** option 3 - Carbon price 100% ongoing emissions, fund 40% TfT equivalent and remainder for other climate contributions.
- **Adjustable variables:** Carbon-price and emissions coverage adjustments based on profit per tCO_2e layering.

Based on their profit-per-ton value in the reporting year, companies shall apply the applicable internal carbon price to the scope of emissions coverage as specified in *Table 1* below.

Companies shall allocate a portion of this budget to deliver ex-post, quantified mitigation equivalent to 40% of its ongoing emissions. The remaining budget shall be used to fund other high integrity climate contributions.

Table 1

Profit per ton (USD/tCO2e)	Internal carbon price (USD/tCO2e)	Emissions coverage required
< $10	$5	Scope 1 + 2
$10 - $100	$10	Scope 1 + 2
$100 - $1,000	$30	Scope 1 + 2
$1,000 - $10,000	$80	Scope 1 + 2 + 3
> $10,000	$100	Scope 1 + 2 + 3

Technology Company B
500,000 tCO_2e of scope 1 and 2
10 million tCO_2e scope 3
$70 billion profit
$6.6k profit per tCO_2e.

- ➔ $1.05B total contribution (Scopes 1-3 @ $100/t)
- ➔ 1.5% of annual profit
  - ◆ ~$42M for ex-post outcomes (40% of emissions, $10/t)
  - ◆ ~$1.008B remaining for other contributions

Mining Company C
30 million tCO_2e of scope 1 and 2
570 million tCO_2e scope 3 emissions
$12 billion profit;
$20 profit per tCO_2e.

- ➔ **$150M** total contribution (scopes 1-2 at $5 per *$tCO_2e$*)
- ➔ 1.25% of annual profit
  - ◆ ~$120M for ex-post outcomes (40% of emissions, $10/t)
  - ◆ ~$30M remaining for other contributions

Group discussion

Let's do a temperature check menti-poll

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Should the SBTi differentiate responsibility for addressing ongoing emissions based on ability to pay?

If we do adjust, which approach do you prefer for adjusting for ability to pay?

If we follow a variable-based adjustment, what variables and layers should we adjust by?

If we follow a design-based approach, what should the minimum bar be?

Join us on Mentimeter!

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https://www.menti.com/albxnyy5jsih

QR:

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Revised BVCM EWG meeting schedule

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Cross-EWG Claims meeting
6 June

16 April
What counts (Pt 1)

8 May
What counts (Pt 2)

3 June
How much is enough (pt 1)

25 June
Bringing together what counts and how much.

15 July
Synergies with removals; joint session with CDR EWG

6 August
Who is eligible?

28 August
BVCM claims, data quality and recognition dashboard

IN PERSON MEETING
(Date TBD)

What to expect between now and our next meeting on 25th June…

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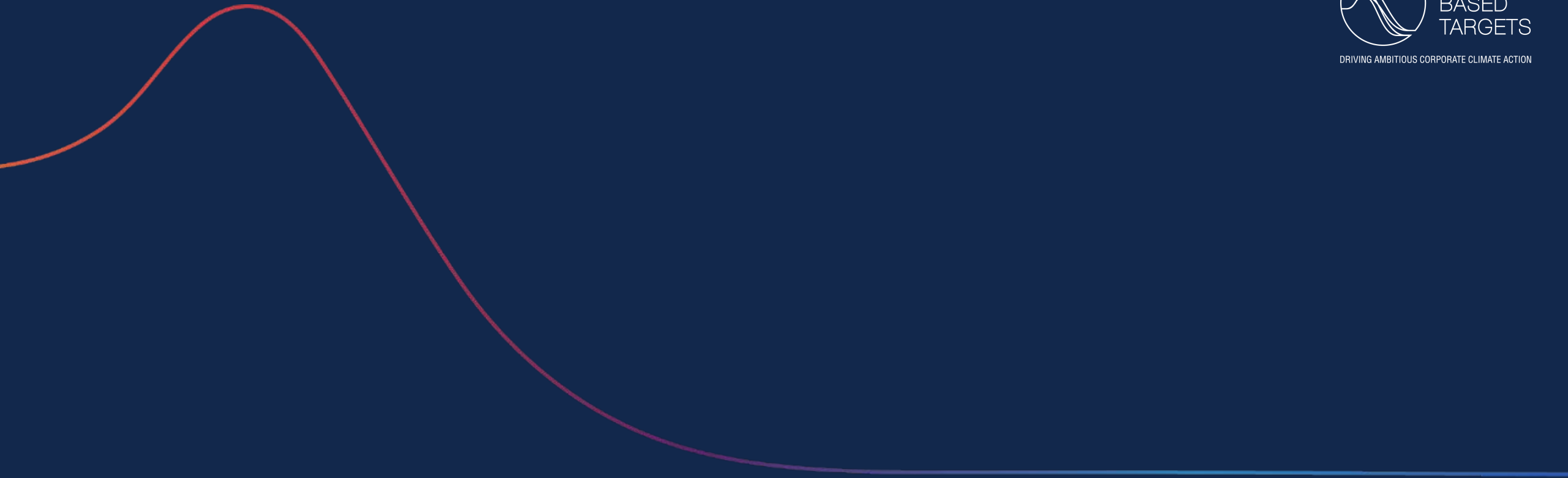
Today's **slides and minutes** will be uploaded to our shared folder

Pre-reads for our next meeting will be shared 5 days in advance

Any questions? You can reach us at alicefarrelly@sciencebasedtargets.org and scarlettbenson@sciencebasedtargets.org



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