SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Session IV: Barriers to implementation (Part II)

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- A Conflict of Interest may be:
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  - 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?

Introduction | Our goal today is to discuss what's feasible: removal targets by design option, sector, and market readiness

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Today's topic

1. **Recap from session III**

2. **Pre-read recap: Economic feasibility and risk of implementing removal target**

Group discussion

3. **Mentimeter recap: What are the key barriers companies might face when setting removal targets?**

4. **Availability of high quality removals in the near term**

Presentation on the current state of the carbon removal market by Dr Mai Bui

5. **State of play: Design options, pros and cons, and emerging variants**

Session wrap up

RECAP OF PREVIOUS DISCUSSIONS

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Broad convergence

Update on the removal target design structure

The SBTi presented an new approach for scaling removals based on an annual linear growth which was welcomed by EWG members

How long carbon is stored

The group highlighted that requiring long-term durability through a like for like approach could represent a barrier to scale removals, given the cost associated with permanent solutions

Some members highlighted that the reversal risks associated with less permanent solutions could be mitigated with current/emerging monitoring practices

Implementation challenges of scaling removals: survey pool

The group agreed that economic feasibility is a key implementation challenge

The group agreed that the lead time associated with the delivery of CO_2 infrastructure projects is a major risk

Open question

Quantifying the cost implications of the removal target design options

Will be discussed in this session

Integrate monitoring and contingency measures to manage reversal risks of removal solutions

WIP

Study objective: Assessing the risks and barriers associated with implementing removal targets

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ECONOMIC BARRIERS

We quantified the near-term (2030-2035) economic feasibility of implementing interim removal targets, where cost projections are less prone to uncertainty. Key research questions included:

- **How feasible is for companies to absorb the cost of near-term durable removals,** considering sectoral differences in emissions intensity, and profitability?
- **How these costs align with firms' existing financial profiles**

We consider different CO_2 storage durability thresholds, ranging from 100 to 1000 years, and then calculate the average market price of removal credits for each durability threshold, based on cost data found in publicly available marketplaces.

NON-ECONOMIC BARRIERS

We included a high level discussion on non-economic barriers that might constrain companies from implementing removal targets in the near term, including:

- **Companies willingness to pay for removals**
- **The status of the voluntary removal market and the near term availability of high quality removal credits**

How much will removal targets cost to SBTi companies in the near term?

We quantified the near-term economic feasibility of the removal targets, for a non-exhaustive SBTi companies across heavy industries (aviation, cement, shipping) and light industries (food and beverage)

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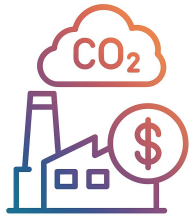
How the durability threshold affects the cost of delivering the removal target?

Like for like vs gradual transition

- The like-for-like approach is 35% more costly than a gradual transition approach, because of the near term need for expensive permanent removals
- The costs associated with like-for-like approach is sensitive to the basket of GHG emissions in a company's inventory
- For the gradual transition approach we assumed a minimum durability of 100 years, **lowering this threshold further could reduce the cost companies will face in the near term**

How a company's residual emissions profile affects the cost of meeting its removal target?

Emission intensity and ability to pay



- Hard to abate companies will be required to purchase high volume of removals given their high residual emissions levels.
  - The total volume of removals that a cement company will be required to purchase is **18 to 38 times greater** than that of a food and beverage company.
  - Setting these targets would cost up to 6% of the cement company annual profit
- These companies might be operating on low margins, hence their ability to pay might be limited

How the removal scaling design affects the cost of delivering the removal target

Cumulative vs linear scaling

- Adopting a linear scaling is the most expensive option for all companies, owing to the greater volume of removals required,
- Under a gradual transition approach, the cement company would spend approximately **four times more** than when assuming a cumulative scaling

How these findings contrast with a company willingness to pay for removals?

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The findings from a recent SBTi survey might provide some insights

SBTi companies are already buying removal credits:

56% of respondent companies with targets validated by the SBTi self reported to voluntarily purchase carbon credits, and **50% of these credits are removals**. However, amongst SBTi companies already purchasing high durable removal credits, only 1% are operating in hard-to-abate sectors

The average corporate annual spending on carbon credits is low

Participating companies self-reported an average annual spending on carbon credits of about **USD 5.4 million**. Taking this figure as a reference budget, only companies with relatively low residual emissions at their net-zero target year (e.g., archetypal food and beverage company) would be able to fulfill their removal targets

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Discussion

Barriers to delivering on removal targets: Reflections from the EWG via mentimeter Poll

- **Economic feasibility** and **lead time** are the most cited challenges: companies may be constrained by economic, technical, and operational readiness of CDR solutions.
- Policy and market fragmentation: i**nconsistent quality criteria** and lack of enabling policies may slow down company-level commitments.
- **Investment prioritization and co-benefits**: companies may favor emissions reductions and nature-based solutions (NBS) due to broader environmental/social co-benefits and better return on investment.

How would the CDR market respond to the demand for durable removals in the near term?

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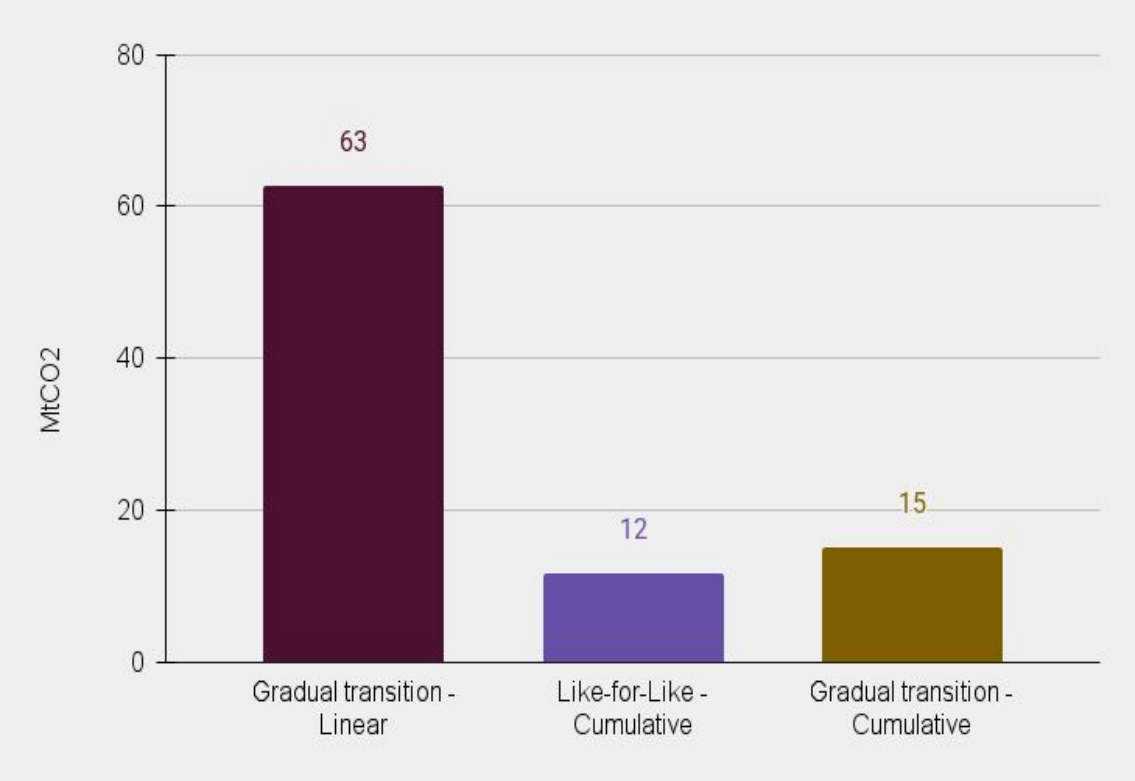
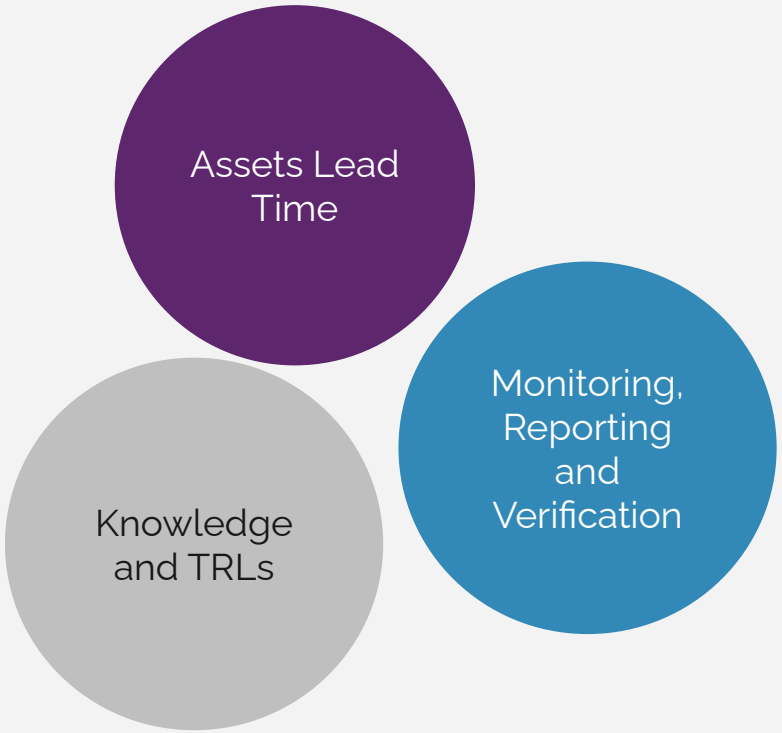
Interim removal targets will require 12-63 Mt of removal credits by 2035



Can the removal market match this demand with high quality removal credits when accounting for the implementation barriers EWG members have identified?



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CDR: current state of the market

Dr. Mai Bui

Addressing removal emissions: what are the options?

Let's recap from our previous group meetings

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Three options for addressing residual emissions between 2030 and the net zero year:

1. **Mandatory** targets, **removals** only
2. **Required** targets, removals only
3. **Mandatory** targets, **removals** or **additional mitigation**, or a combination or both

Two durability thresholds for removals:

1. **Like for like**
2. **Gradual transition**

Two scaling approaches for removal targets:

1. **Cumulative scaling**
2. **Annual linear scaling**

What are the pros and cons of each option?

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1 **Mandatory** targets, **removals** only

Pros and cons

- ✓ Support the scale up of removals in the near term, especially if implemented through annual targets
- ✓ Aligns with science
- x Costly, especially when requiring annual targets or under a like for like approach
- x Hard to abate companies, generally operating on low margins, would face higher costs
- x Potential market scarcity of high quality removals to meet the demand in the near term

2 **Recommended** targets, removals only

- ✓ Avoids the challenges associated with mandatory removal targets
- ✓ Easy to implement and validate as it aligns with previous version of the CNZS
- x Does not support the scale up of removals
- x Does not align with other frameworks and initiatives (e.g. ISO Net Zero, EU CRCF)
- x Least favoured option by EWG members (when assessed against SBTi principles)

3 **Mandatory** targets, **removals** or **additional mitigation**, or a combination or both

- ✓ Avoids the challenges associated with mandatory removal targets
- x Might not support the scale up of removals
- x For hard-to-abate companies, removals may represent the only viable option for addressing residual emissions, thereby exposing them to the same challenges identified under Option 1
- x Difficult to communicate

What alternative design choice could be introduced to mitigate these challenges?

Other approaches to address residual emissions could overcome these challenges

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[Option 4] Early recognition for company that address their residual emissions and deferred removal targets requirement

- A phased-in approach could be adopted, whereby companies that begin addressing their residual emissions by 2030 are eligible for recognition by the SBTi. After a specified milestone year—e.g. 2035 or 2040—setting and meeting removal targets would become mandatory for companies.

Key considerations for the design of this approach include:

- Defining the minimum proportion of residual emissions that must be addressed through removals to qualify for SBTi recognition in the initial phase.
- Establishing which removal solutions are eligible, based on their durability
- Assessing potential overlaps with the BVCM framework
- Clarifying whether removals procured prior to the mandatory target year can be credited toward the fulfilment of removal targets, and under what conditions.
- Clarifying whether ex-post or ex-ante credit is allowed

[Option 3] Gradual transition with increased durability at the portfolio level

- Could be a variant to the gradual transition approach, in which durability requirements are applied at the *portfolio level* rather than at the level of individual removal credits. Under this approach, companies would be expected to progressively increase the average durability of their carbon removal portfolio over time, rather than meeting a fixed threshold for each removal unit.

Key considerations for the design of this approach include:

- Quality safeguards needed to prevent over-reliance on short-lived removals in early years, thereby mitigating the risk of a “race to the bottom”
- Cost implications, and whether this approach address the implementation barriers

Invitation to collaborate on removal target design

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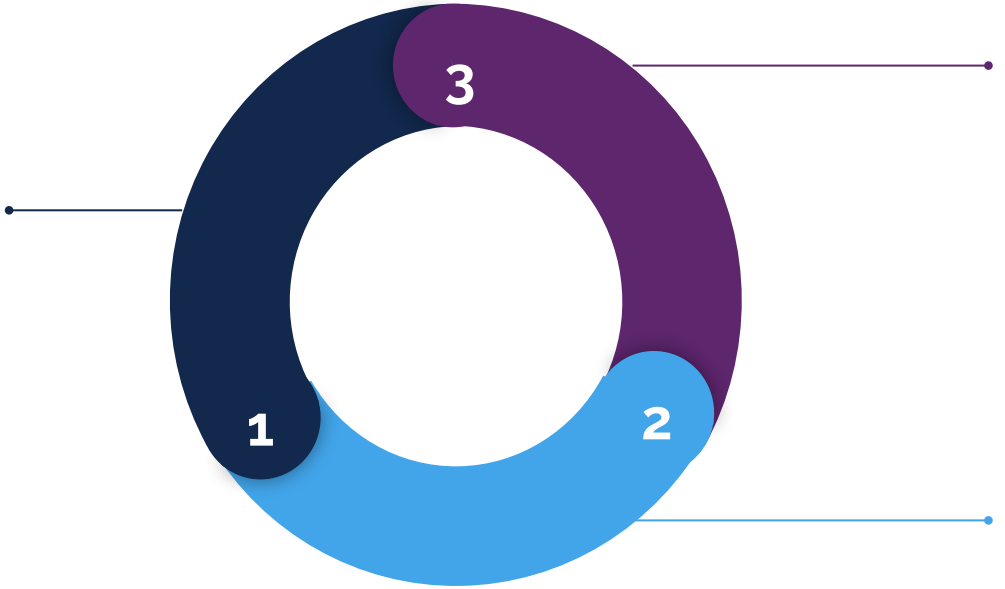
We invite EWG members to:

- **Provide feedback** on the options currently under consideration, including the phased and portfolio-based approaches presented today
- **Propose additional design options** for removal targets that could facilitate the implementation of removal targets, whilst aligning with science

Summary of design options

We will circulate a summary of design options, including key aspects for consideration as pre read material



In person workshop

The survey insights will inform our in person workshop in September where we will explore trade offs and refine the framework for addressing residual emissions

Offline survey

Members will be invited to share their view via a short survey

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Additional slides

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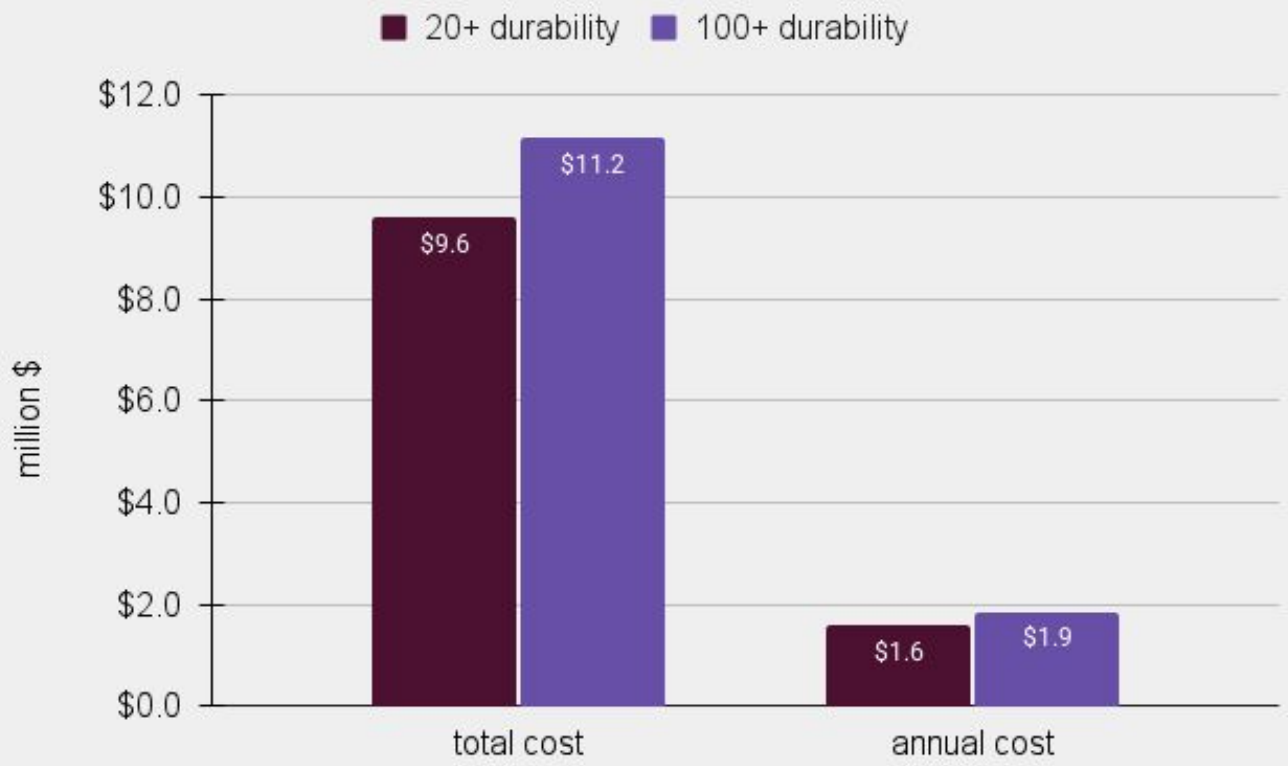
Using an archetypal food and beverage company, the economic implication of relaxing the minimum durability of removal solutions shows modest cost differences.



- The gradual transition approach applies a durability threshold of 100+ to low-durable removal options. This approach includes removal methods like biochar (200 years durability) and afforestation projects with 100 years durability.
- A sensitivity assessment reduces the durability threshold from 100+ years to 20 years, meaning that the removal options includes only less costly, low-durable removal options like afforestation
- The resulting cost difference is modest: total and annual removal costs decrease by only 16–21%, compared to the original 100+ year threshold.
- This suggests that relaxing durability requirements yields only limited economic benefit, raising questions about the trade-offs between cost savings and long-term climate integrity.