Foundations for science-based net-zero target setting in the corporate sector
• **This webinar is being recorded.**
• The slides and recording of this session will be posted to our website. They will also be emailed to you.
• Please type your questions into the Q&A box.
• We will answer questions with the Q&A function throughout the webinar. Questions that cannot be answered today will be considered for future webinars or for a Q&A document.
AGENDA & SPEAKERS

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COP 25

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Director, Science Based Targets
CDP

ANNA KRUIP
Manager, Environment and
Climate, UN Global Compact
AGENDA & SPEAKERS

0. Welcome – Agenda, objectives of the session and introduction of speakers

1. Race to Zero – Update from the High-Level Climate Champion on the Race to Zero

2. Foundations for science-based net-zero targets – Overview of key findings and recommendations from the paper

3. Testimonial – IKEA a climate positive approach towards net-zero

4. What is next? – Overview about the process to develop a science-based global standard for corporate net-zero targets

5. Take action – Wrap-up and call to action
BUSINESS AMBITION FOR 1.5°C
Companies can join the campaign by signing a commitment form. Through the document, companies commit to align to 1.5°C within 24 months (for new SBTi companies) through any of the following options:

- **Science-based targets**: By aligning GHG emission reduction targets, across all relevant scopes, with 1.5°C emissions scenarios;
- **Net-zero emissions targets**: By setting a public goal to reach science-based net-zero emissions by no later than 2050 and interim Science-based targets, consistent with this ambition.
- Targets need to be aligned with the criteria and recommendations of the Science Based Targets initiative and submitted for validation.
Race to Zero: Update from the High-Level Champion

GONZALO MUNOZ
High Level Champion
COP 25
@gmunozabogabir
Foundations for science-based net-zero targets

ALBERTO CARRILLO PINEDA
Director, Science Based Targets
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@acarrillopineda
About the SBTi Net-Zero Foundations paper

• With the rapid growth in corporate net-zero targets, there is a pressing need for a common understanding on what net-zero means for companies and how they can get there, so that the growing momentum behind net-zero targets translates into action that is consistent with achieving a net-zero world by no later than 2050.

• The paper intends to provide clarity on key concepts, rather than a definitive set of criteria or detailed guidance:
  ➢ What does it mean to reach net-zero emissions at the global level?
  ➢ What can be inferred from mitigation scenarios that are consistent with limiting warming to 1.5°C?
  ➢ What does it mean to reach net-zero emissions at the corporate level?
  ➢ What is the role of decarbonisation and offsetting in science-based corporate net-zero strategies?
What is the underlying science behind science-based net-zero targets?

**Science**

**Biophysical limits and societal sustainability goals.** The scientific thresholds that define a safe space for humanity, and societal sustainability goals/targets that define a just development future for nature and people.

**Aligned with.** The scope and ambition of the target at actor level is aligned with the ambition of the underlying societal goal/target.

**Voluntary, measurable, and actionable targets.** Actors must be able to measure a baseline, take action, and track progress with a reasonable level of effort.
What is the underlying science behind science-based net-zero targets?

<table>
<thead>
<tr>
<th>Climate</th>
<th>Nature</th>
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<td>Translation / alignment</td>
<td>Identify synergies</td>
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Approach followed in this paper
What is the underlying science behind science-based net-zero targets?

Current state: Imbalance between anthropogenic sources of emissions and sinks resulting in a net-accumulation of GHG emissions in the atmosphere.

Desired state: A state in which anthropogenic emissions of GHGs to the atmosphere are balanced by anthropogenic removals.

No increase in atmospheric GHG accumulation.

Anthropogenic GHG emissions

Anthropogenic carbon removals
What is the underlying science behind science-based net-zero targets?

Researchers have explored a wide range of scenarios that limit warming to 1.5°C. Generally speaking, the lower the level of near-term emissions abatement in a pathway, the higher the need to remove carbon from the atmosphere at a later time to stabilise temperatures at a certain level.
What is the underlying science behind science-based net-zero targets?

While some level of atmospheric carbon removal is necessary and can be achieved in synergy with other social and environmental goals, the deployment of negative emission technologies at a large scale is subject to a number of uncertainties and constraints, including potential adverse effects on the environment and trade-offs with other Sustainable Development Goals.

Acknowledging these risks and trade-offs, the SBTi analysis presented in the SBTi net-zero foundations paper recommends the use of mitigation pathways that limit warming to 1.5°C with no or limited overshoot.
What does it mean to reach net-zero emissions at the corporate level?

Guiding principle 1: Reaching net-zero emissions for a company involves achieving a state in which its value chain results in no net accumulation of carbon dioxide in the atmosphere and in no net-impact from other greenhouse gas emissions.

Guiding principle 2: In accordance with the best available science, the Paris Agreement and Sustainable Development Goals, companies should transition towards net-zero in line with mitigation pathways that are consistent with limiting warming to 1.5°C with no or limited overshoot.

Guiding principle 3: The mitigation strategy followed by the company should inform long-term strategies and investments that mitigate exposure to climate-related transition risks, ensuring that the business model of the company will continue to be viable in a net-zero economy.
What does it mean to reach net-zero emissions at the corporate level?

Understanding the destination

To reach a state of net-zero emissions for companies consistent with achieving net-zero emissions at the global level in line with societal climate and sustainability goals implies two conditions:

1. To achieve a scale of value-chain emission reductions consistent with the depth of abatement achieved in pathways that limit warming to 1.5°C with no or limited overshoot and;
2. To neutralise the impact of any source of residual emissions that remains unfeasible to be eliminated by permanently removing an equivalent amount of atmospheric carbon dioxide.

#ScienceBasedTargets

![Graph showing emissions reduction](image-url)
What does it mean to reach net-zero emissions at the corporate level?
Understanding the transition to net-zero and underlying tactics

<table>
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<tr>
<th>Mitigation tactics</th>
<th>Physical effect on the climate</th>
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<tr>
<td><strong>Within the value chain of the company</strong></td>
<td>Reduce the volume of GHGs released into the atmosphere:</td>
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<tr>
<td><strong>Abatement</strong></td>
<td>• Decarbonisation;</td>
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<tr>
<td>Measures that companies take to prevent, reduce or eliminate sources of GHG emissions <strong>within</strong> its value-chain</td>
<td>• Eliminating deforestation and LUC emissions;</td>
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<tr>
<td><strong>Compensation</strong></td>
<td>• Minimising non-CO$_2$ emissions</td>
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<tr>
<td>Measures that companies take to prevent, reduce or eliminate sources of GHG emissions <strong>outside</strong> of their value-chain</td>
<td>Remove carbon from the atmosphere</td>
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<tr>
<td><strong>Neutralisation</strong></td>
<td></td>
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<tr>
<td>Measures that companies take to remove carbon from the atmosphere in order to counterbalance the impact of a source of emissions that remains unabated</td>
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</table>
What does it mean to reach net-zero emissions at the corporate level?

Understanding the transition to net-zero and underlying tactics

**Illustrative strategy 1:** Company reduces value-chain emissions in line with science and neutralises those emissions that, according to 1.5°C pathways, remain unfeasible to be eliminated.

**Illustrative strategy 2:** Similar to strategy 1. However, the company is also neutralising the impact of those emissions released into the atmosphere while it transitions towards a state of net-zero emissions.

**Illustrative strategy 3:** Similar to strategy 1. However, the company is compensating those emissions still released into the atmosphere while it transitions towards a state of net-zero emissions.
What is the expected level of abatement in science-based net-zero targets?

Companies setting science-based net-zero targets are expected to attain a level of reduction in value-chain emissions consistent with the depth of abatement achieved in scenarios that limit warming to 1.5°C with no or limited overshoot.

- For some activities, this means full elimination of GHG emissions before 2050 (e.g. deforestation, power generation);
- Other activities are decarbonised at a slower pace (e.g. industrial process CO₂ emissions) or have some remaining, unavoidable emissions (e.g. some non-CO₂ emissions from agriculture);
- The translation from what is needed at the scientific level, to what is required in the SBTi net-zero criteria (e.g. coverage, levels of abatement for different activities, implications for S3, etc.) will be resolved in the next phase of the process.
What is the role of **offsetting** in science-based net-zero targets?

Generally speaking, offsetting can play two roles in science-based net-zero strategies:

1. **In the transition to net-zero:** Companies may opt to compensate or to neutralise emissions that are still being released into the atmosphere while they transition towards a state of net-zero emissions;

2. **At net-zero:** Companies with unavoidable residual emissions within their value chain are expected to neutralise those emissions with an equivalent amount of carbon dioxide removals.

Both compensation and neutralisation measures by companies can play a critical role in accelerating the transition to net-zero emissions at the global level. However, they do not replace the need to reduce value-chain emissions in line with science.
What is the difference between science-based GHG emission reduction targets and net-zero targets?

Science-based GHG emission reduction targets ensure that companies reduce their emissions at a rate that is consistent with the level of decarbonisation required to limit warming to 1.5°C or well-below 2°C.

The focus of SBTs is on abatment of emissions within the value-chain of the company.

SBTs are short to mid-term (5 to 15 years)

Building on science-based GHG emission reduction targets, science-based net-zero targets ensure that companies also take responsibility for emissions that have yet to be reduced, or that remain unfeasible to be eliminated.

The focus of science-based net-zero targets is on abatment of emissions in line with science within the value-chain of the company and on compensation or neutralisation of unabated emissions within or beyond the value chain of the company.

Reaching a state of net-zero emissions, consistent with limiting warming to 1.5°C, is commonly a longer-term (e.g. by 2050) aspiration. However, shorter-term targets are becoming increasingly common, although, often making reference to a transient state of net-zero emissions, not a permanent one.
High-level recommendations for science-based net-zero targets

1. **Boundary:** A company’s net-zero target should cover all material sources of GHG emissions within its value chain.

2. **Transparency:** Companies should be transparent about the sources of emissions included and excluded from the target boundary, the timeframe for achieving net-zero emissions, the amount of abatement and neutralization planned in reaching net-zero emissions, and any interim targets or milestones.

3. **Abatement:** Companies must aim to eliminate sources of emissions within its value-chain at a pace and scale consistent with mitigation pathways that limit warming to 1.5°C with no or limited overshoot.

4. **Timeframe:** Companies should reach net-zero GHG emissions by no later than 2050. While earlier target years are encouraged, a more ambitious timeframe should not come at the expense of the level of abatement in the target.

5. **Accountability:** Long-term net-zero targets should be supported by interim science-based emission reduction targets to drive action within timeframes that are aligned with corporate planning and investment cycles and to ensure emission reductions that are consistent with Paris-aligned mitigation pathways.
High-level recommendations for science-based net-zero targets

**Neutralization:** Reaching net-zero emissions requires neutralizing a company’s residual GHG emissions with an equivalent amount of carbon removals. An effective neutralization strategy involves removing carbon from the atmosphere and storing it for a long-enough period to fully neutralize the impact of any GHG that continues to be released into the atmosphere.

**Compensation:** While reaching a balance between emissions and removals is the end goal of a net-zero journey, companies should consider undertaking efforts to compensate unabated emissions in the transition to net-zero as a way to contribute to the global transition to net-zero.

**Mitigation hierarchy:** Companies should follow a mitigation hierarchy that prioritizes eliminating sources of emissions within the value chain of the company over compensation or neutralization measures. Land-based climate strategies should prioritize interventions that help preserve and enhance existing terrestrial carbon stocks, within and beyond the value chain of the company.

**Environmental and social safeguards:** Mitigation strategies should adhere to robust social and environmental principles, ensuring amongst others, protection and/or restoration of naturally occurring ecosystems, robust social safeguards, and protection of biodiversity, amongst others.

**Robustness:** Compensation and neutralization measures should: (a) ensure additionality, (b) have measures to assure permanence of the mitigation outcomes, (c) address leakage and (d) avoid double-counting.
IKEA: A climate positive approach to limiting warming to 1.5°C

ANDREAS AHRENS
Head of Climate
Inter IKEA Group
IKEA committed to limit climate change to 1.5°C
IKEA climate footprint

Taking a full value chain responsibility

24.9 Million tonnes CO2 eq (FY19)

Materials: 42%
Food ingredients: 4%
Production: 11%
Product transport: 5%
Retail & other own operations: 3%
Customer travel & home deliveries: 11%
Product use at home: 20%
Product end-of-life: 4%
Becoming climate positive

- Drastically reducing greenhouse gas emissions
- Carbon removals and storage through forestry, agriculture and products
- Additional effect to reach net-zero by latest 2050
- Going beyond IKEA (no carbon offsetting)
LET THE RACE TO ZERO BEGIN!

HUVUDROLL
Plant balls
(4% of climate footprint compared to traditional meat balls)
Towards a science-based global standard for net-zero targets

CYNTHIA CUMMIS
Director of Private Sector Climate Mitigation, WRI
Towards a science-based global standard for net-zero targets

**Definition**
Net-zero definition in the corporate sector in line with guiding principles

**Guiding principles**
Overarching principles to inform net-zero definition and the development of net-zero guidance and criteria

**Criteria**
Criteria to inform the formulation and assessment of corporate net-zero targets

**Net-zero guidance**
Practitioner’s guidance to inform the formulation and implementation of net-zero targets in the corporate sector

Net-zero foundations paper

SBTI Net-Zero Standard
Towards a science-based global standard for net-zero targets

1. Understanding suitable residual emissions for different sectors of the economy: At the sector or activity level, how much emissions abatement is needed, and which emissions sources are infeasible to abate in scenarios that limit warming to 1.5°C?
2. Interim targets: What are credible transition pathways that are consistent with limiting warming to 1.5°C, and how should the use of transition pathways differ by emissions scope for each company?
3. Offsetting: What factors need to be considered to effectively neutralize a source of emissions that remains unabated? What are effective mechanisms through which companies can accelerate the transition to net-zero beyond their value chain? What factors should be considered in offsetting / compensation tactics?
4. Claims: What are the conditions that a company needs to meet to claim that they have reached net-zero emissions? What other claims are relevant in the transition towards net-zero?

Expected components of SBTi net-zero standard

1. Criteria for the formulation of science-based net-zero targets in the corporate sector;
2. A validation protocol to assess net-zero targets against the set of criteria to be developed as part of this process;
3. Detailed guidance for science-based net-zero target setting in the corporate sector, including guidance for credible claims.
Towards a science-based global standard for net-zero targets

• The SBTi will deliver a balanced, transparent, and inclusive stakeholder process to develop the SBTi net-zero standard building upon the ISEAL Standard-Setting Code of Good Practice and the GHG Protocol standard setting process;

• As part of this process, the SBTi will convene an Expert Advisory Group with balanced representation from stakeholders to provide expert advice and direction throughout the development of the criteria;

• Additionally, a broader Consultative Group will be convened to provide input during the public consultations on draft deliverables;

• Throughout the development process, the SBTi will also engage on a regular basis with our permanent advisory groups (TAG, SAG, etc.);

• Decisions will be developed through building consensus and all outputs will be subject to comprehensive and rigorous reviews by stakeholders.

• The SBTi will make every effort to reach consensus within the Expert Advisory Group. If consensus cannot be reached, the SBTi retains the authority to make a final decision.
# Towards a science-based global standard for net-zero targets

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<tr>
<th>SBTi</th>
<th>Net Zero Expert Advisory Group</th>
<th>Net Zero Consultative Group</th>
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<td><strong>Composition</strong></td>
<td>Staff from SBTi Core Team</td>
<td>20 to 30 strategic and technical advisors with proven expertise in relevant thematic areas. Members will be invited based on their level of expertise seeking a balanced representation between business and non-business interests as well as stakeholder, expertise, gender and geographic diversity.</td>
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<td><strong>Main responsibilities</strong></td>
<td>• Process convener; &lt;br&gt;• Facilitate and coordinate meetings and consultation workshops; &lt;br&gt;• Leads criteria development process in consultation with NZ EAG; &lt;br&gt;• Develop validation protocol &amp; guidance,</td>
<td>• Provides advice and guidance throughout the criteria development process; &lt;br&gt;• Helps translate the feedback from internal and external consultations into clear recommendations; &lt;br&gt;• Unify divergent viewpoints and amplify the process and final results.</td>
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Towards a science-based global standard for net-zero targets

- **Drafting of initial criteria**: SBTi
- **Public consultation**: NZ EAG
- **Finalisation of criteria**: SBTi
- **Drafting of net-zero validation protocol & guidance**: SBTi
- **Public consultation & road testing**: NZ EAG
- **Finalisation of net-zero validation protocol & guidance**: SBTi

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Towards a science-based global standard for net-zero targets

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<th>2020</th>
<th>2021</th>
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<td>Oct</td>
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- **Drafting of initial criteria**
- **Public consultation**
- **Finalisation of criteria**
- **Drafting of net-zero validation protocol & guidance**
- **Public consultation & road testing**
- **Finalisation of net-zero validation protocol & guidance**
- **Launch of SBTi Net-Zero Standard**

**Timeline:**

- **Oct 2020:** Drafting of initial criteria
- **Nov 2020:** Public consultation
- **Dec 2020:** Finalisation of criteria
- **Jan 2021:** Drafting of net-zero validation protocol & guidance
- **Feb 2021:** Public consultation & road testing
- **Mar 2021:** Finalisation of net-zero validation protocol & guidance
- **Oct 2021:** Launch of SBTi Net-Zero Standard

**Interim deliverable**

**Final deliverable**
Take Action: Business Ambition for 1.5°C

LILA KARBASSI
Chief of Programmes, UN Global Compact
LET’S LIMIT GLOBAL WARMING TO 1.5°C
“Now we need many more companies to join the movement, sending a clear signal that markets are shifting.”

– António Guterres, UN Secretary-General