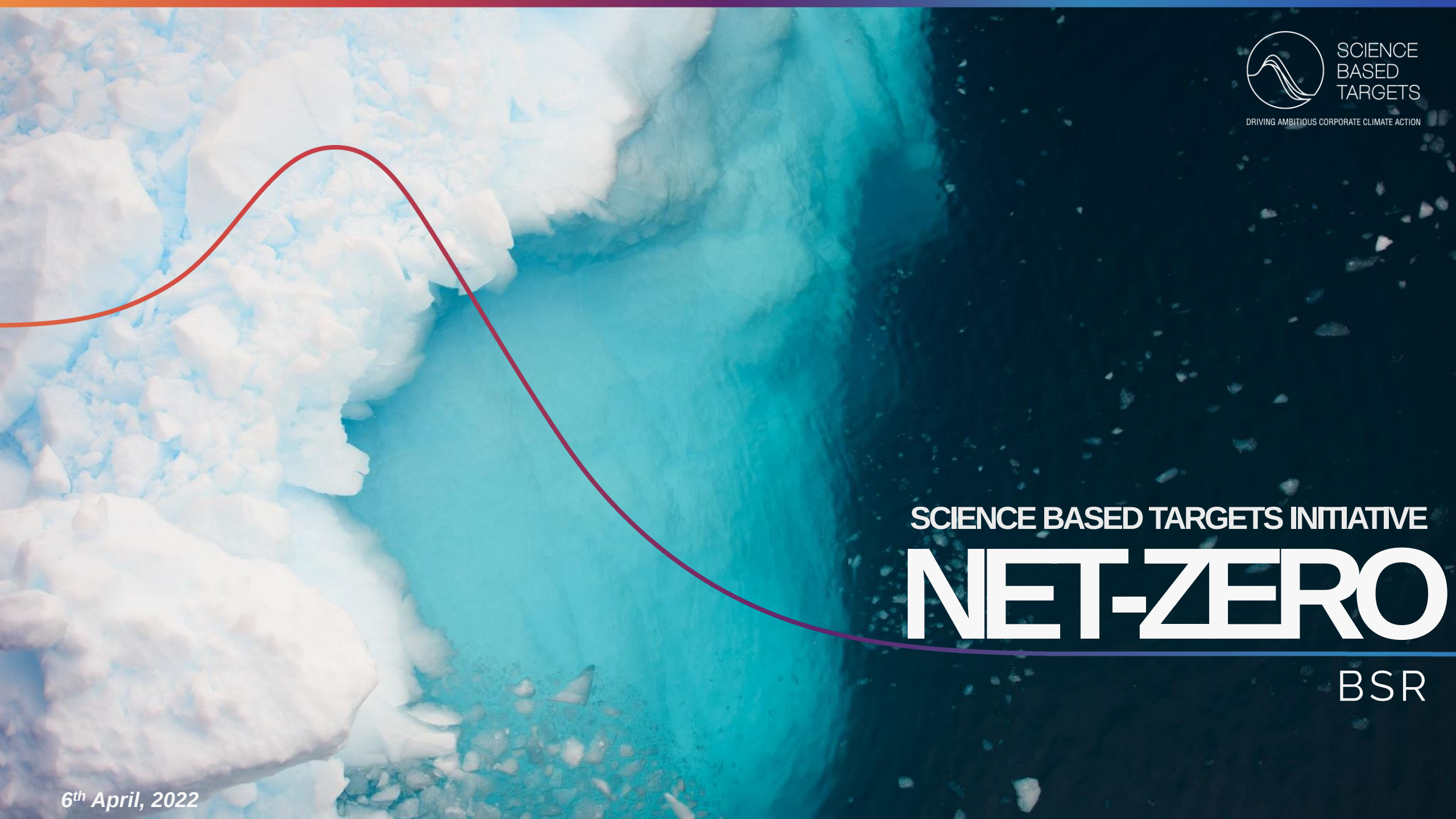
SCIENCE
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TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION
SCIENCE BASED TARGETS INITIATIVE
NET-ZERO
BSR
6th April, 2022

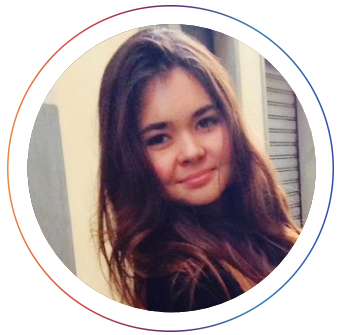
Speakers

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

EMMA WATSON

Net-Zero Senior Manager

Science Based Targets initiative



PAULINA TARRANT

Net-Zero Engagement Manager

Science Based Targets initiative

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SESSION 1 AGENDA

1. Introduction to the Science Based Targets initiative
2. The Net-Zero Standard development process
3. What is a science-based net-zero target?
4. Beyond value chain mitigation explainer
5. What is the SBTi doing next on net-zero?
6. What resources are available?

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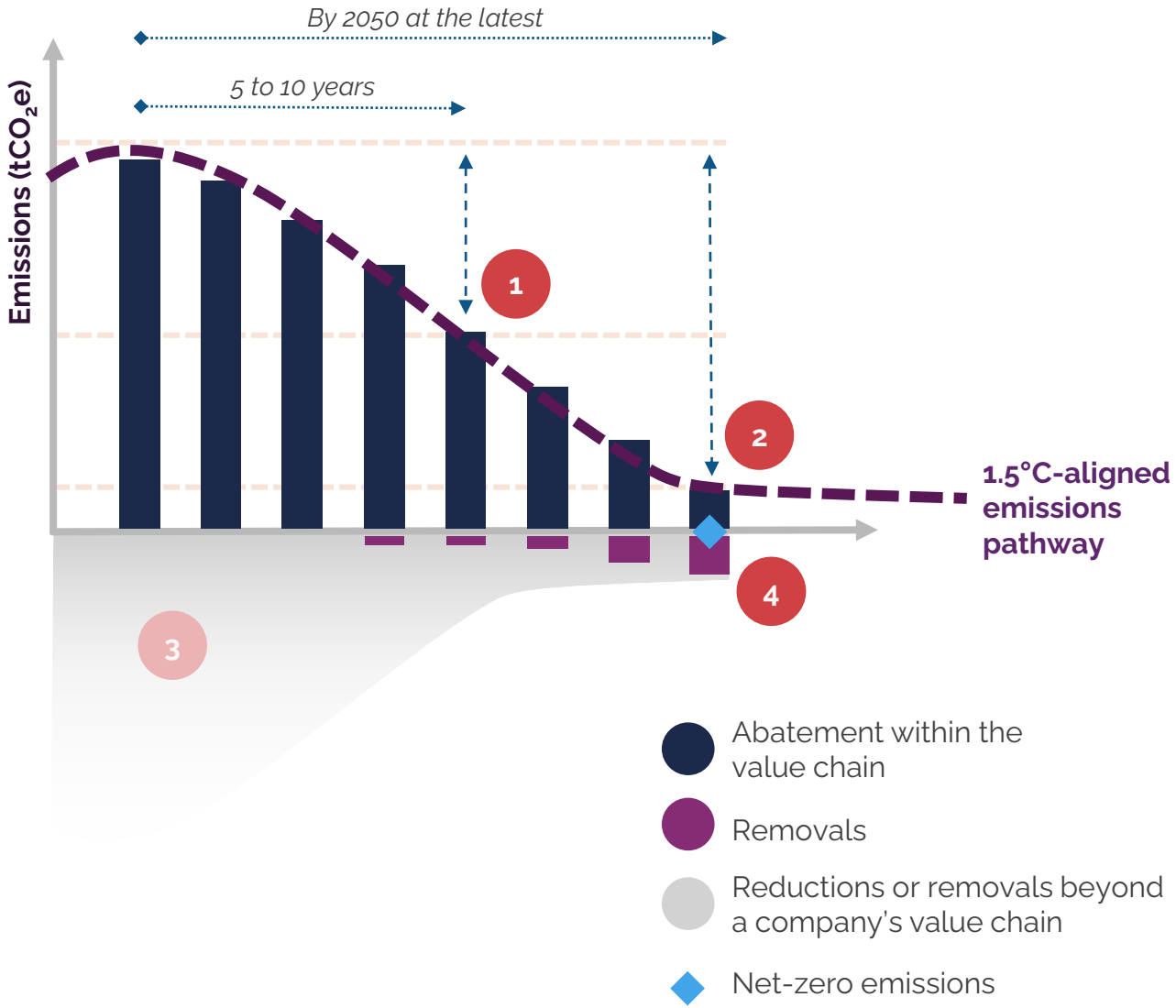
SESSION 2 Agenda

1. **Net-Zero Methods and Criteria**
   - Scope 3
   - Near- and long-term methods
   - Sector-specific guidance
2. **Beyond Value Chain Mitigation**
   - Explainer
   - Role of Carbon Credits
   - Next Steps
3. **FAQs**

NET-ZERO METHODS AND CRITERIA

Four key elements make up the Net-Zero Standard framework



1 **To set near-term science-based targets**:
5-10 year emission reduction targets in line with 1.5°C pathways

2 **To set long-term science-based targets:**
Target to reduce emissions to a residual level in line with 1.5°C scenarios by no later than 2050

3 **Beyond value chain mitigation:**
In the transition to net-zero, companies should take action to mitigate emissions beyond their value chains. For example, purchasing high-quality, jurisdictional REDD+ credits or investing in direct air capture (DAC) and geologic storage

4 **Neutralization of residual emissions:**
GHGs released into the atmosphere when the company has achieved their long-term SBT must be counterbalanced through the permanent removal and storage of carbon from the atmosphere

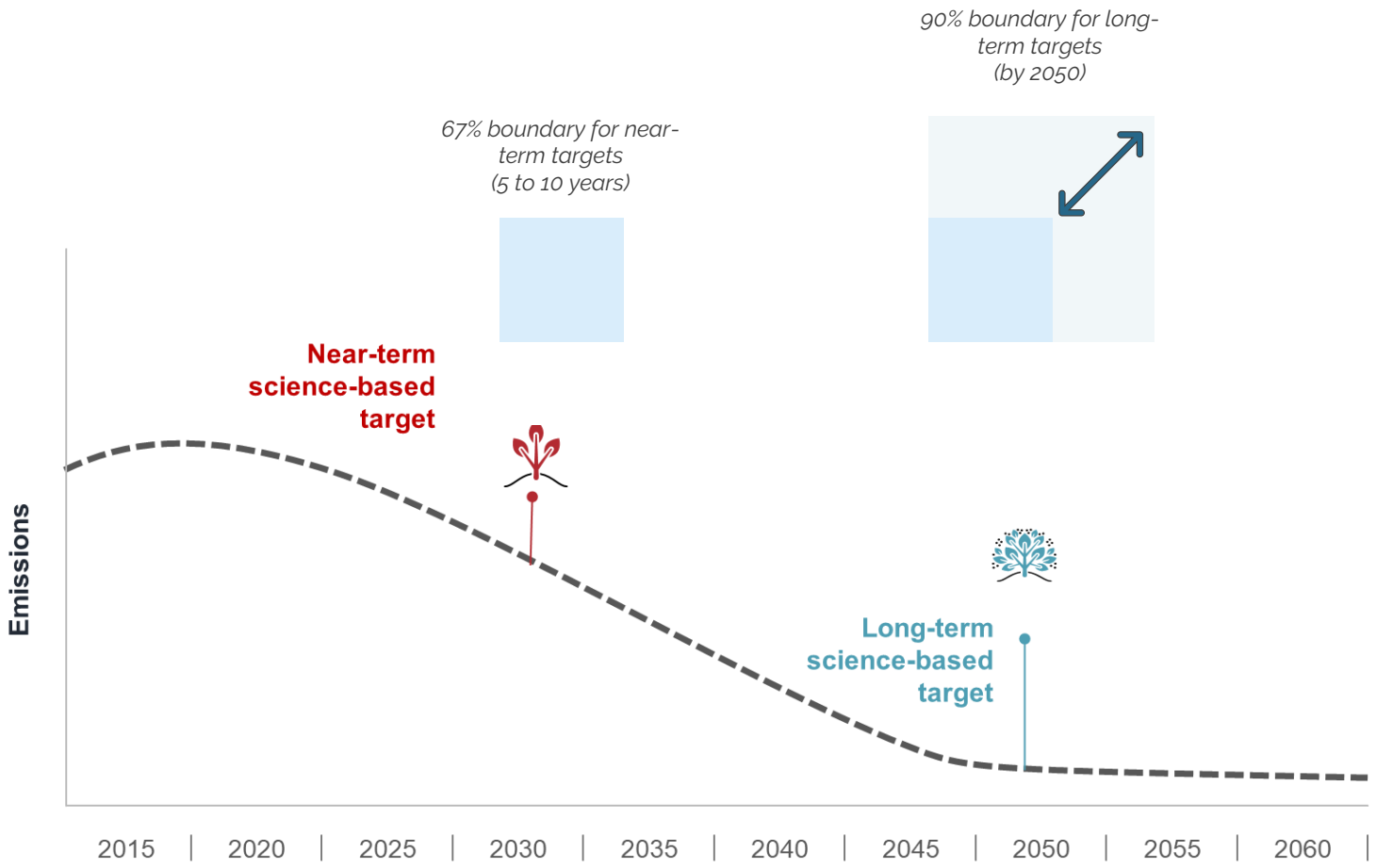
Required

Recommended

Four considerations for setting near-and long-term SBTs

	Boundary *How much coverage or your emissions inventory is required?*	Ambition *What is the ambition level in terms of limiting temperature rise?*	Timeframe *What is the maximum timeframe to meet your targets?*	Methods *What are the eligible methods to set your targets?*
Near-term science-based target	Scope 1 and 2: **95%** Scope 3: If >40% of total emissions, **67% coverage**	Scope 1 and 2: **1.5˚C** Scope 3: **Well-below 2˚C**	**5-10 years from date of submission**	1. Absolute reduction 2. Sector-specific intensity convergence 3. Renewable electricity 4. Supplier or customer engagement 5. Scope 3 economic intensity reduction 6. Scope 3 physical intensity reduction
Long-term science-based target	Scope 1 and 2: **95%** Scope 3: **90%**	Scope 1, 2, and 3: **1.5˚C**	**2050 latest**	1. Absolute reduction 2. Sector-specific intensity convergence 3. Renewable electricity 4. Scope 3 economic intensity reduction 5. Scope 3 physical intensity reduction

Acknowledging challenges with Scope 3, the Standard is following an expansive boundary approach



A comprehensive target boundary is necessary for companies to make credible net-zero claims. However, acknowledging the challenges with Scope 3 data, **the Net-Zero Standard is following an expansive boundary approach.**

This gradual increase in ambition:

- Provides opportunities to **collaborate across the whole value chain** to support suppliers and customers to decarbonize
- Allows companies to focus now on making steep cuts in their **most material emissions**
- Affords **time to work through the complexity** of scope 3

SBT methods

Eligible for all scopes

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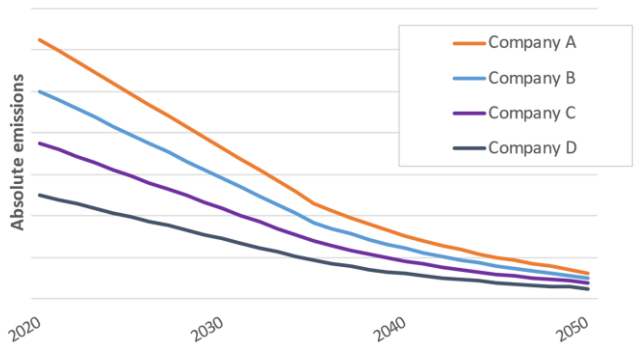
Absolute reduction

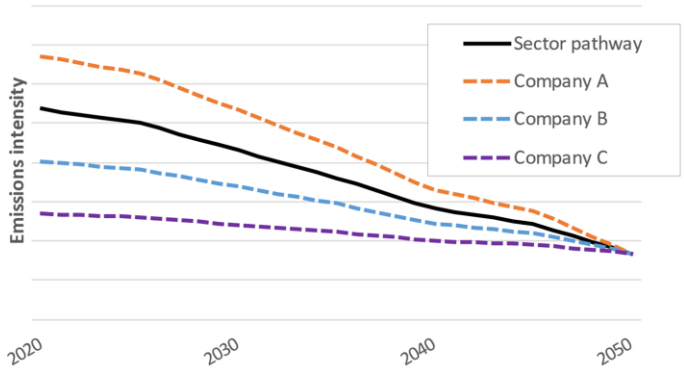
Absolute emissions are reduced by an amount that is, at minimum, consistent with the cross-sector or sector-specific pathway



- Targets may cover a mix of activities and emissions sources
- Applicable to all sectors except power generation and timber/forestry

Sector-specific intensity convergence

Emissions intensity targets are calculated based on all companies in a sector converging to a sector-specific emissions intensity by 2050 or sooner



- Targets cover a specific sector, physical output, or activity
- Applicable to homogenous sectors and activities [1]

1. This includes Power Generation, Industry sectors (Cement, Iron & Steel), Transport sectors (Road Transport, Aviation, Maritime Transport), Buildings, and Agricultural Commodities

SBT methods

Eligible for specific scopes only

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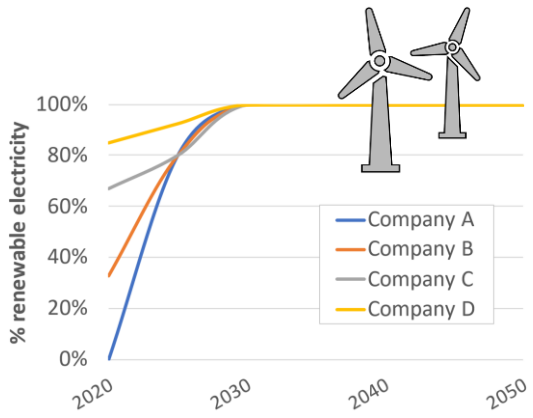
Scope 2

Renewable electricity

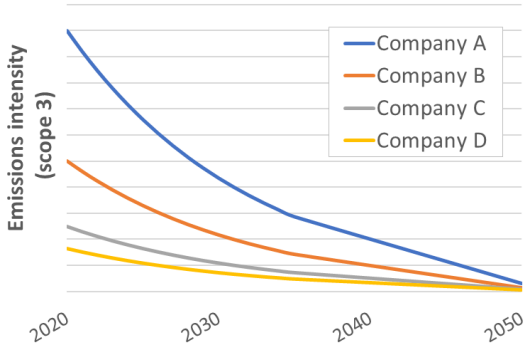
Companies actively procure at least 80% renewable electricity by 2025 and 100% renewable electricity by 2030



Scope 3

Scope 3 economic intensity reduction

Economic emissions intensity is reduced by an amount that is, at minimum, consistent with well-below 2C for near-term targets and 1.5C for long-term targets (based on the cross-sector pathway)

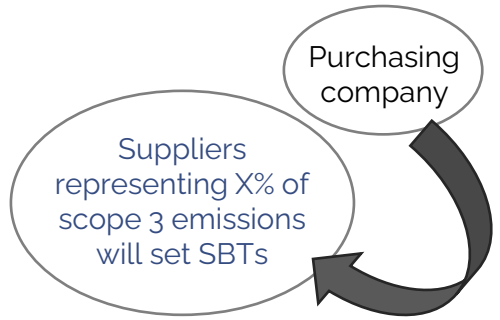


Scope 3 physical intensity reduction

Same as "Scope 3 economic intensity reduction" but for physical intensity targets

Engagement (only eligible for near-term SBTs)

Companies set a target for suppliers or customers representing a certain percent of emissions to set their own SBTs



Target year is a maximum of 5 years from the purchasing company's date of submission

What data is required to model net-zero targets?

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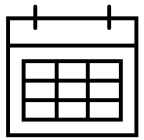
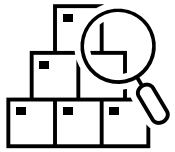
Data needed to calculate net-zero target with the SBTi Tool

Scope 1, 2 & 3 emission inventory

Broken down by activity/sector if modelling multiple targets



Base year



Base year output (e.g. tonnes of crude steel)

Absolute method data input tab

1. ABSOLUTE EMISSIONS BASED TARGET SETTING METHODS

Section 1.1. Input data (absolute targets)

Target coverage	Scopes 1,2 & 3	
Target setting method	Absolute contraction	*To calculate intensity targets, please use Section 2.1. Input data (intensity targets)*
Base year	2018	
Target year	2040	
Sector pathway	Cross-sector pathway	*Please select sector pathway*
Scope 1 emissions	1500	*tCO2e*
Scope 2 emissions	1500	*tCO2e*
Scope 3 emissions	7000	*tCO2e*
Total emissions in Scopes 1,2 & 3 (tCO2e)	10,000.00	*tCO2e*

Section 1.2. Absolute target results

	Base year (2018)	Target year (2040)	% Absolute Reduction
Company | Scopes 1,2 & 3 (tCO2e)	10,000.00	1,000.00	90.0%
Long Term SBT formulation	Company X commits to reduce Scopes 1,2 & 3 emissions 90% by 2040 from a 2018 base year		

Intensity method data input tab

2. INTENSITY BASED TARGET SETTING METHODS

Section 2.1 Input data (intensity targets)

Target coverage	Scope 3	
Target setting method	Physical intensity convergence	*To calculate absolute targets, please use Section 1.1. Input data (intensity targets)*
Base year	2018	
Target year	2040	
Sector pathway	Iron and steel	*Please select sector pathway*
Scope 1 emissions		*tCO2e*
Scope 2 emissions		*tCO2e*
Scope 3 emissions	2000	*tCO2e*
Total emissions in Scope 3 (tCO2e)	2000	*tCO2e*
Base year ouput | Iron and steel	3000	*Tonnes of crude steel*

Overview of available and planned sector-specific pathways and guidance

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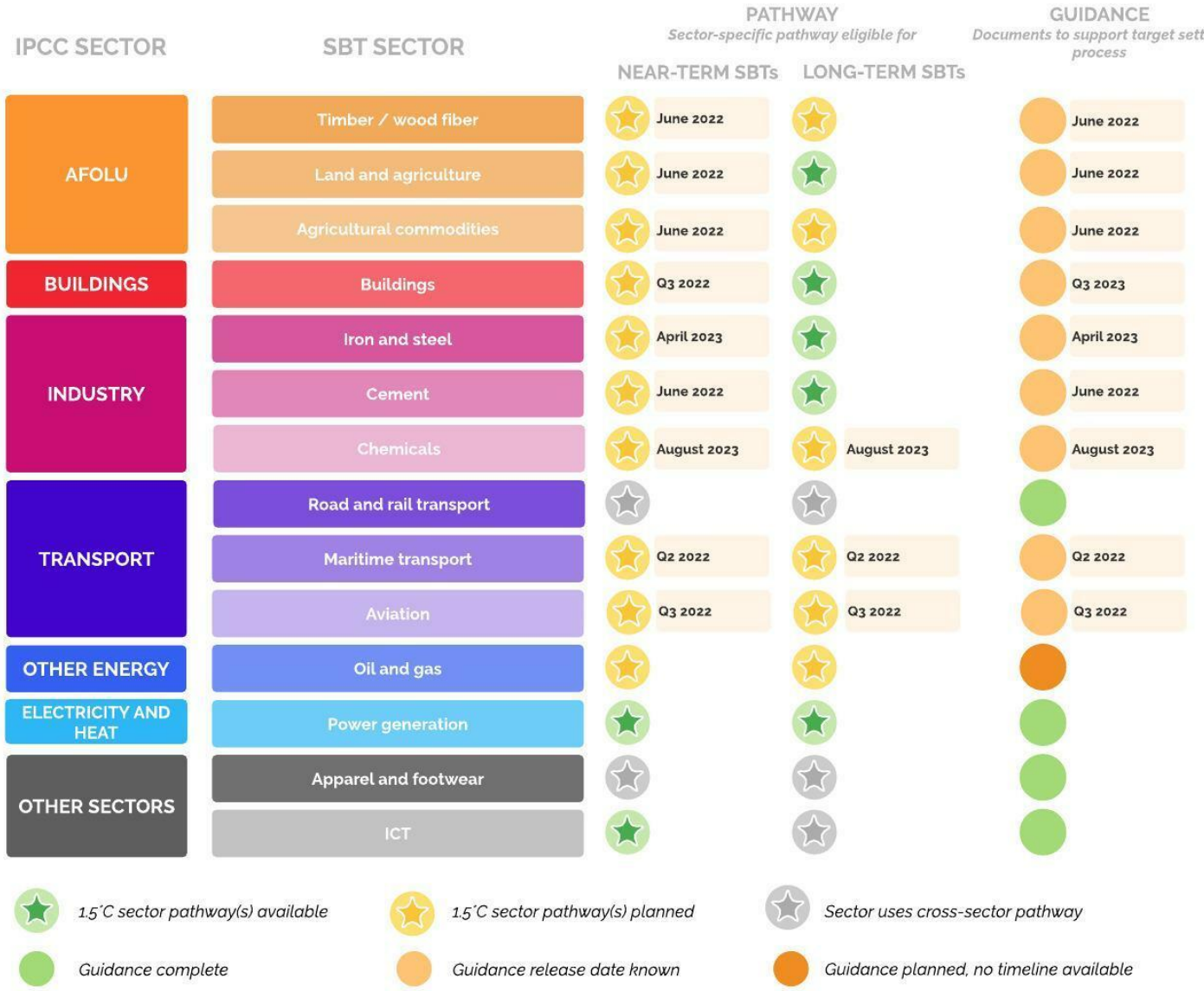

Companies in the FLAG and power sectors are required to use sector-specific pathways. All other sectors can use the cross-sector pathways.

The SBTi is currently unable to accept commitments or validate targets for companies in the oil and gas or fossil fuels sectors. Please view our new policy and project update here.

Should my company use the cross-sector pathway or the sector-specific option to set long-term SBTs?

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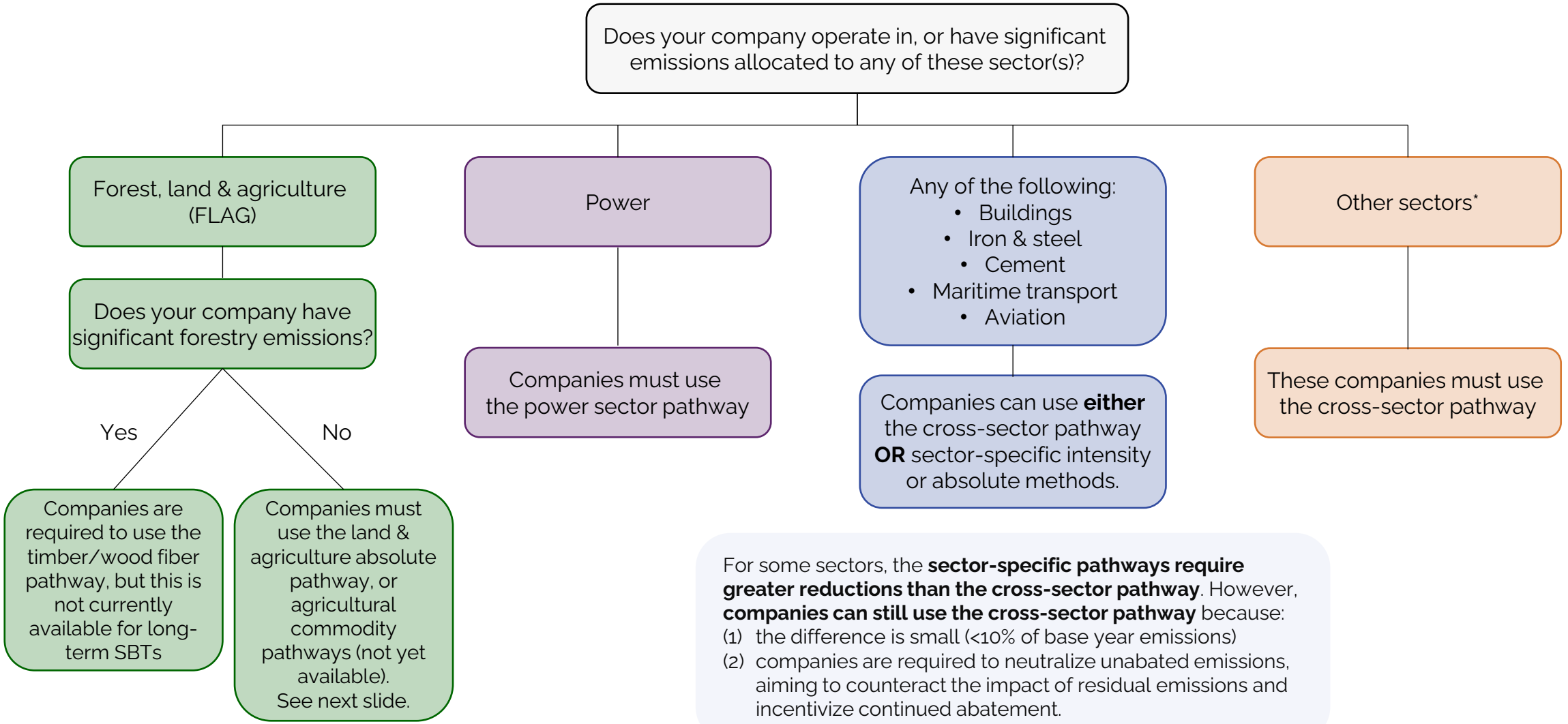

For some sectors, the **sector-specific pathways require greater reductions than the cross-sector pathway**. However, **companies can still use the cross-sector pathway** because:

(1) the difference is small (<10% of base year emissions)
(2) companies are required to neutralize unabated emissions, aiming to counteract the impact of residual emissions and incentivize continued abatement.

**The SBTi is currently unable to accept commitments or validate targets for companies in the oil and gas or fossil fuels sectors. Please view our new policy and project update here.*


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Q&A


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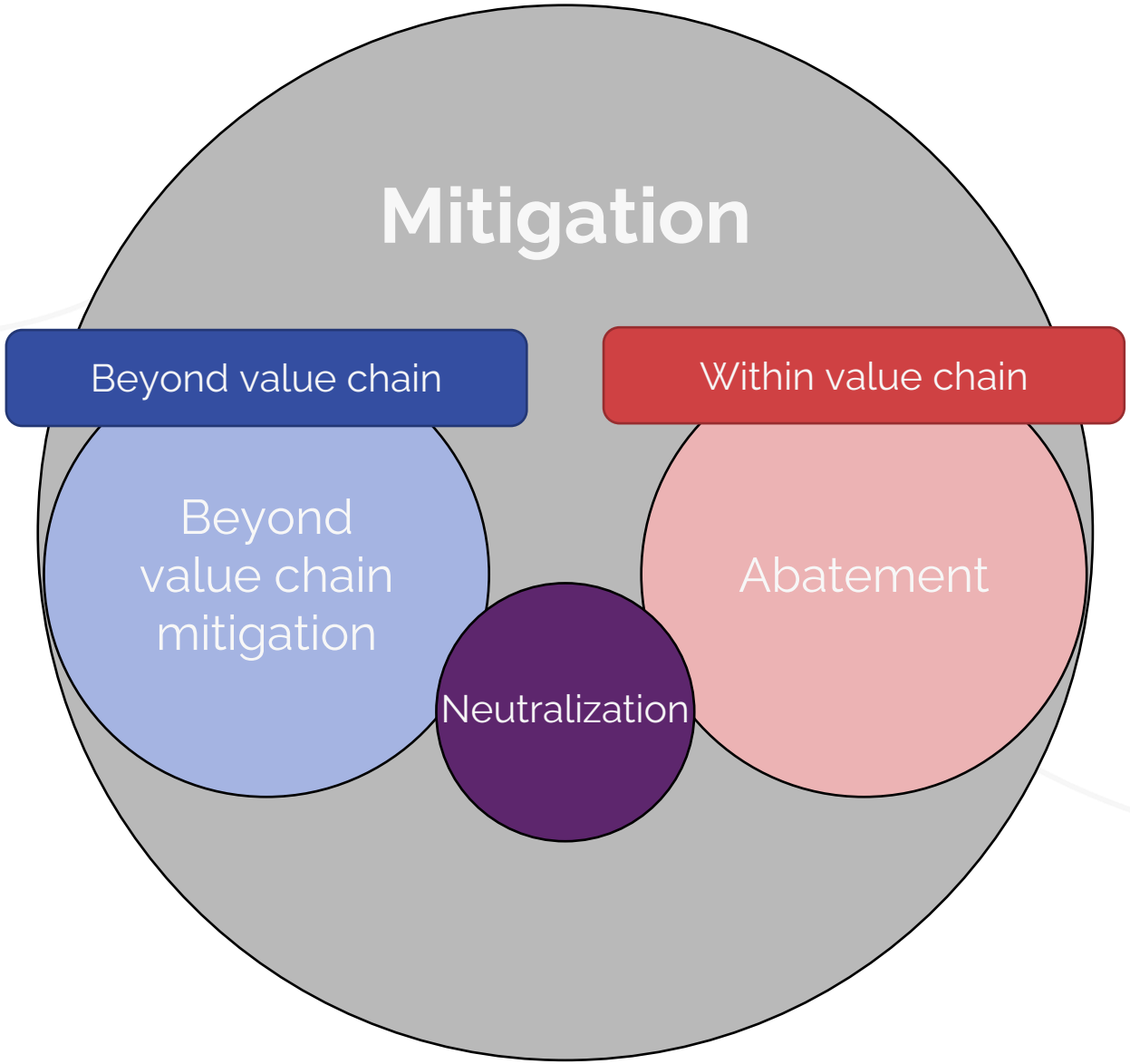
BEYOND VALUE CHAIN
MITIGATION

SBTi has evolved its terminology, phasing out compensation & moving towards “beyond value chain mitigation”



Term	Definition (as per SBTi Net Zero Standard
Mitigation	A human intervention to reduce emissions or enhance the sinks of greenhouse gases (IPCC).
Abatement	Measures that companies take to prevent, reduce or eliminate sources of GHG emissions within their value chain. Examples include reducing energy use, switching to renewable energy and retiring high-emitting assets.
Beyond value chain mitigation (BVCM)	Mitigation action or investments that fall outside a company's value chain. This includes activities outside of a company's value chain that avoid or reduce greenhouse gas emissions, or that remove and store greenhouse gases from the atmosphere.
Compensation (legacy terminology)	Actions that companies take to help society avoid or reduce emissions outside of their value chain.
Neutralization	Measures that companies take to remove carbon from the atmosphere and permanently store it to counterbalance the impact of emissions that remain unabated.

The Net-Zero Standard was developed with the mitigation hierarchy in mind

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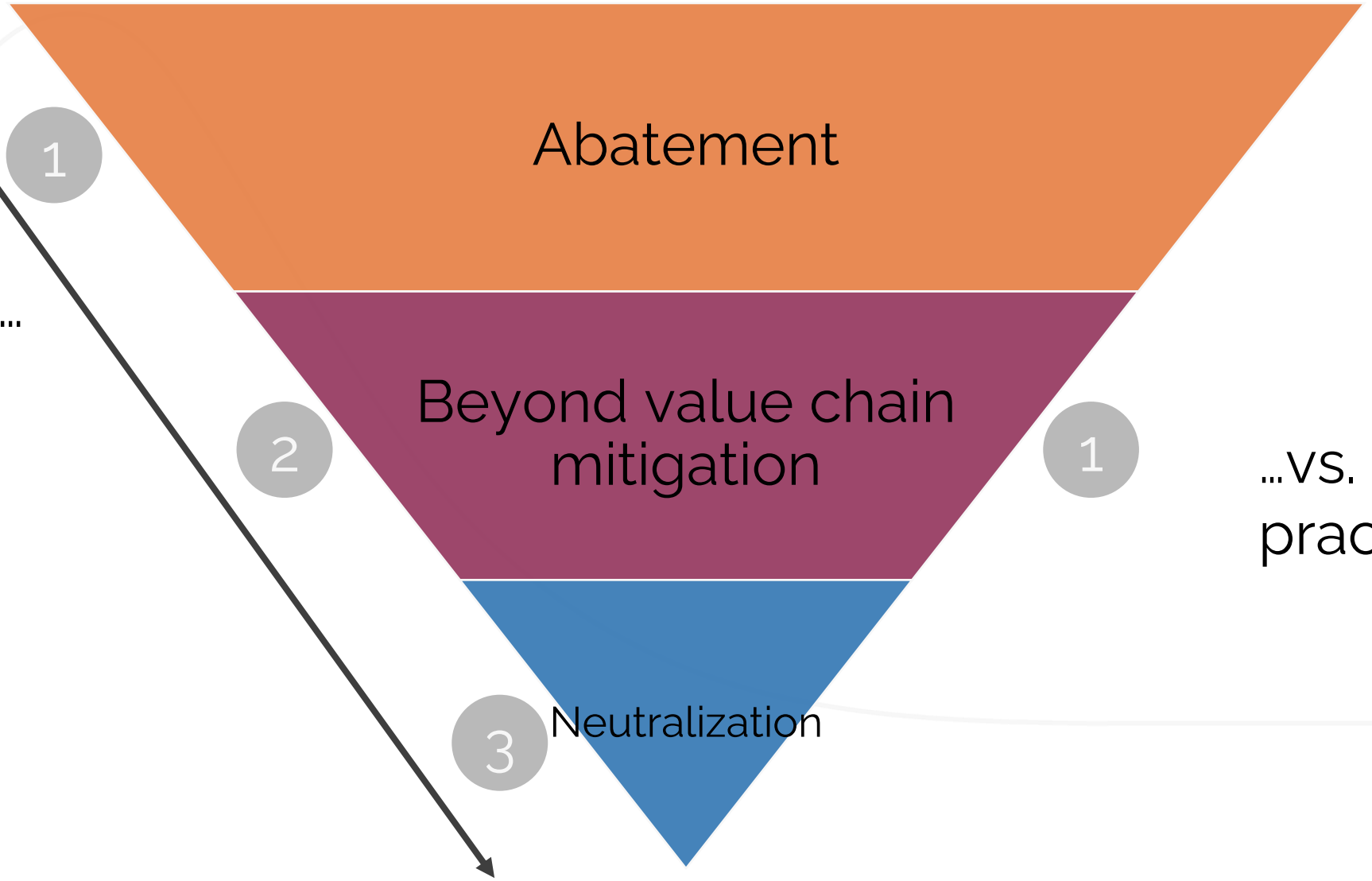
How it should be…



…vs. common practice

Abatement must be prioritised; however, companies are increasingly expected to go beyond their SBTs

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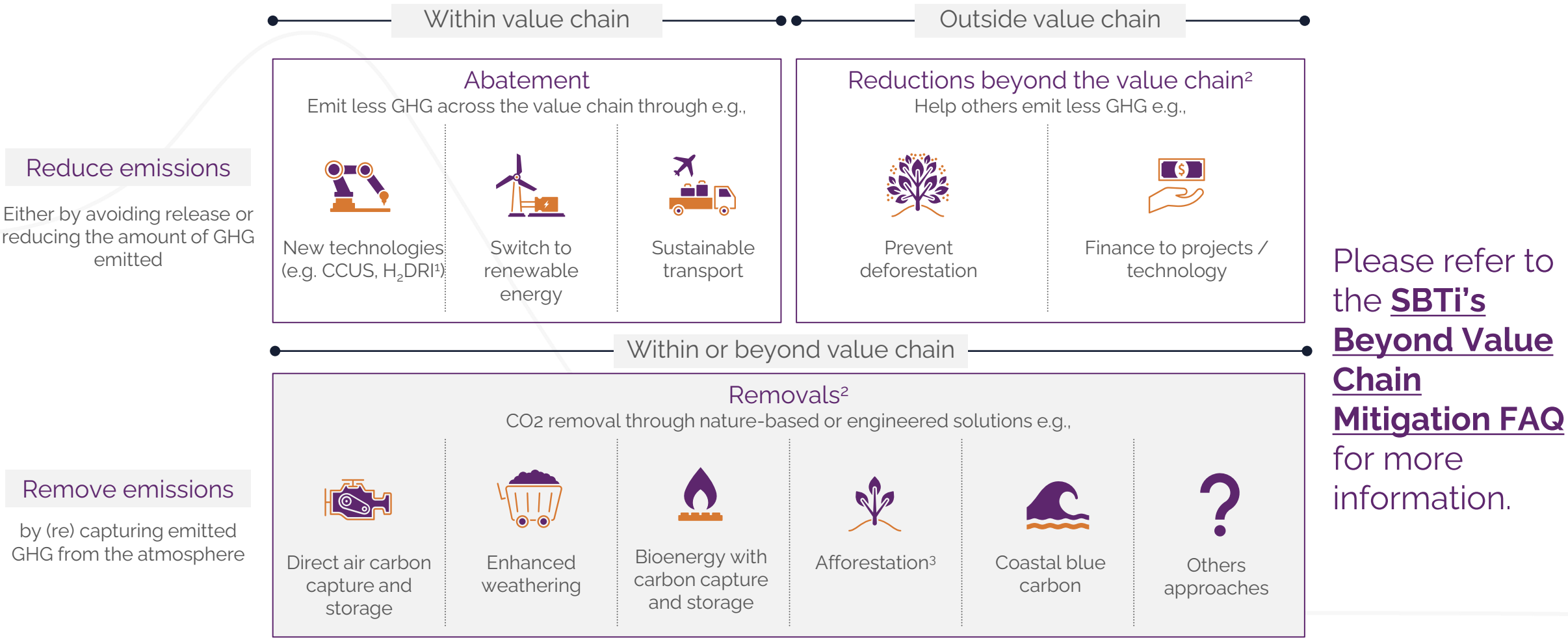
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

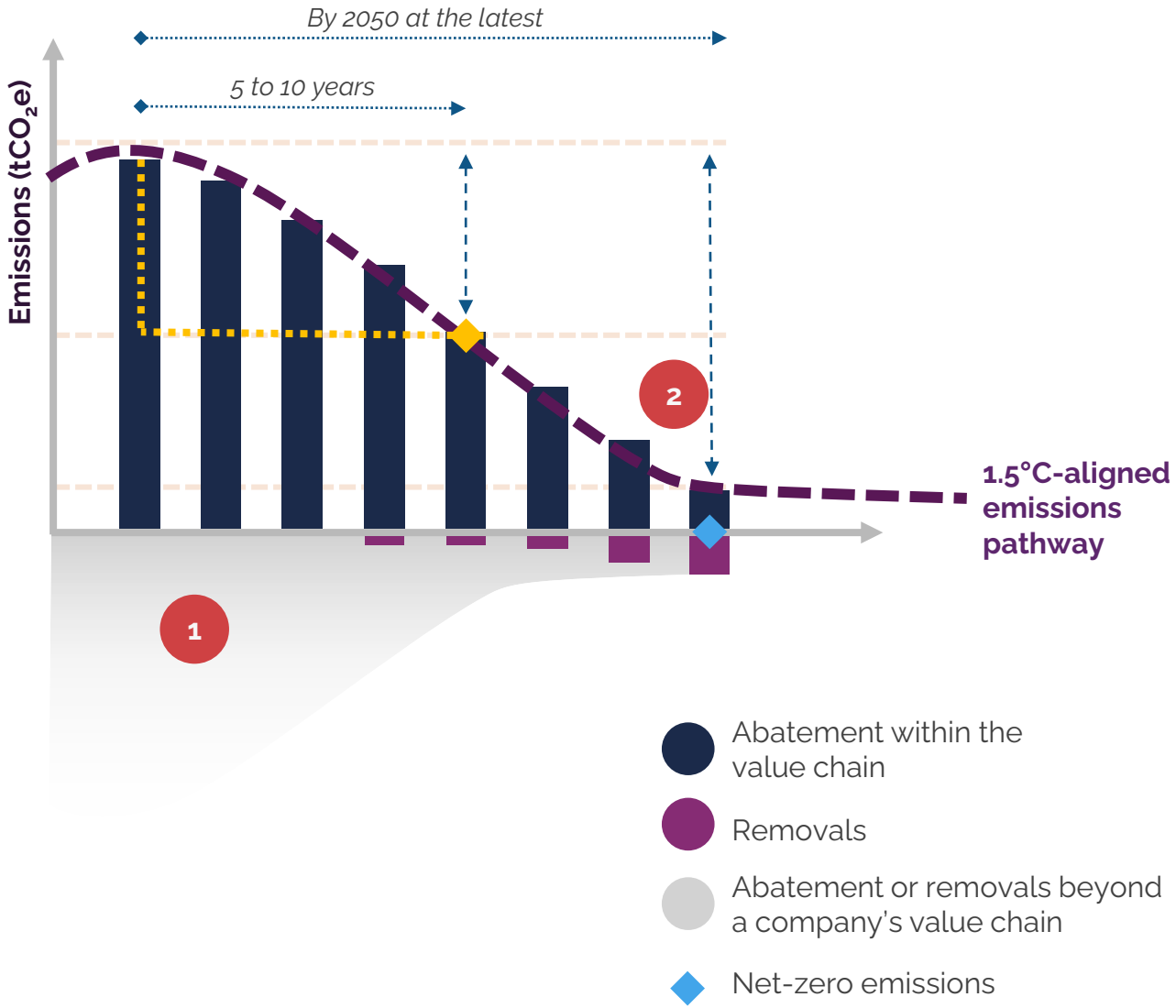


Please refer to the **SBTi's Beyond Value Chain Mitigation FAQ** for more information.

The Net-Zero Standard requires that these removals are permanent. We expect that frameworks to assess CO2 removal permanence, as well as resolving social and environmental concerns, will develop over time

1. CCUS = carbon capture, utilization and storage, H_2DRI = hydrogen direct-reduced iron (both technologies prevent GHGs from entering the atmosphere and therefore count towards emission reductions); 2. Beyond value chain mitigation includes actions to reduce or permanently remove emissions from the atmosphere outside company value chains (i.e., overlaps with neutralization); 3. Can also count towards emissions reductions for companies with forestry, land-use and agricultural emissions in their supply chains

What role do carbon credits play in the SBTi Net-Zero Standard?



Purchasing high-quality carbon credits in addition to reducing emissions along a science-based trajectory can play a critical role in accelerating the transition to net-zero emissions at the global level. Generally speaking, carbon credits can play two roles in science-based net-zero strategies:

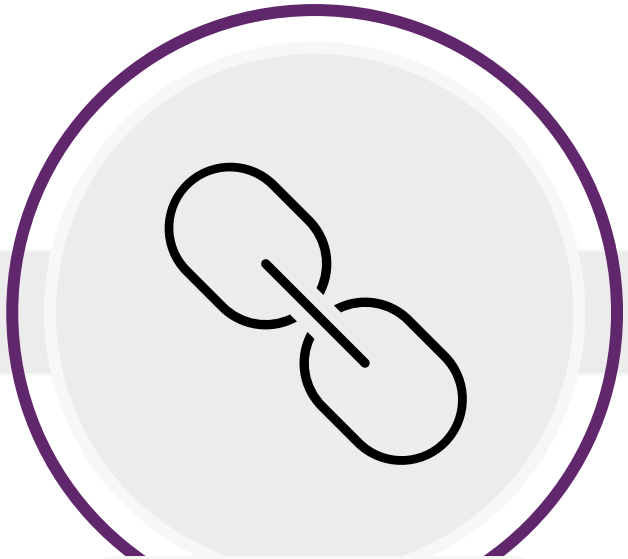
1. **In the transition to net-zero (i.e., now onwards)**
   Companies can purchase carbon credits while they transition towards a state of net-zero emissions (i.e., in addition to science-based abatement of value chain emissions) to support society to achieve net-zero emissions by 2050

2. **At net-zero**
   Companies with **residual emissions** within their value chain are expected to neutralize those emissions with an equivalent amount of carbon dioxide removals at their net-zero target date, and these removals can be sourced from carbon credits.

To follow on from the Net-Zero Standard, the SBTi has planned three projects to tackle challenges related to net-zero

Beyond Value Chain Mitigation

It is vital companies have clarity on how to take credible mitigation actions beyond their value chain. The SBTi is exploring models to incentivize this in a credible and robust way. In the interim, see these FAQs on the topic.



Net-Zero Value Chains

The SBTi recognizes the challenges around scope 3 and is planning to further develop scope 3 target setting methods and explore other approaches to drive net-zero value chain alignment.

Measurement, Reporting & Verification

The SBTi is developing an MRV framework to ensure transparency and accountability around the progress and achievement of science-based emission reduction and net-zero targets.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Q&A


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FAQs

Under the Net-Zero Standard, most companies must reduce emissions at least 90% to reach net-zero. How did you come up with this figure?

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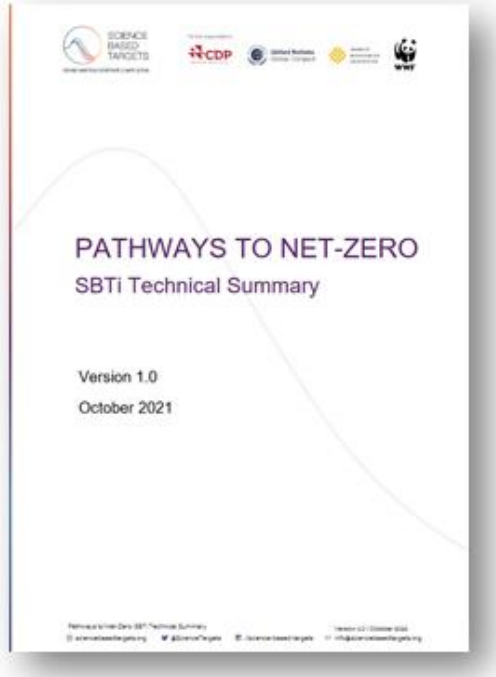
- Evidence shows that we can near-fully decarbonize the economy by 2050 and, if done correctly, it's the best way to meet our climate and sustainability goals[1]

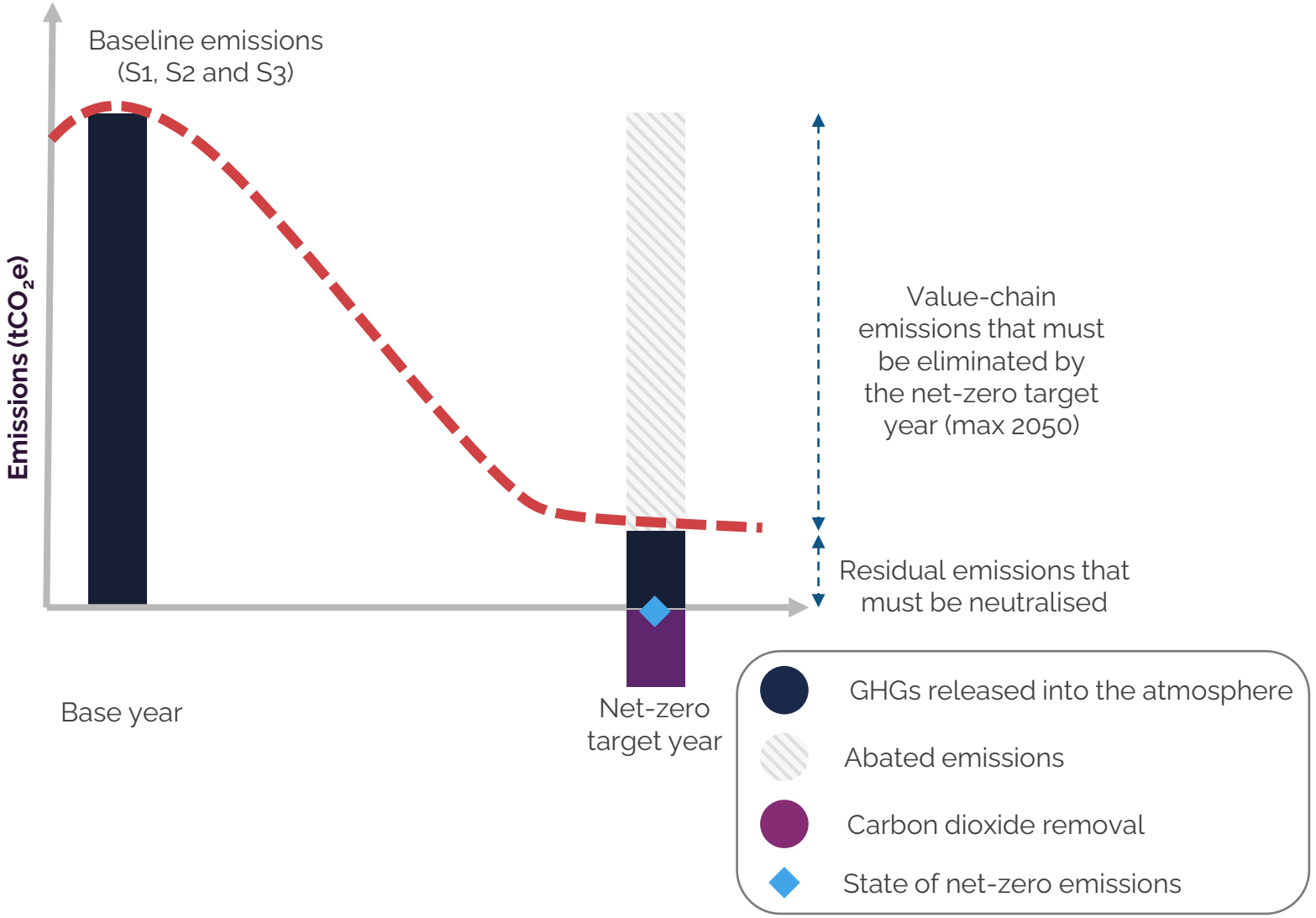
- The 90% reduction shows companies what's needed to align with net-zero at the global level, even if CO2 removal proves to be more challenging than we expect

- The IEA Net-Zero scenario—where gross fossil CO2 emissions are reduced 95% between 2019 and 2050—was an important reference. However, our approach is holistic, building from an expansive scientific review and development with the SBTi Scientific Advisory Group



1. Energy efficiency improvements, infrastructural innovation, and phasing-out fossil fuels—characteristic of IPCC "low energy demand" scenarios—can help meet the 1.5˚C goal with the fewest adverse impacts. The IPCC states with *high confidence* that low energy demand scenarios have the most pronounced synergies with sustainable development and the SDGs (IPCC SR15, Summary for Policymakers D.4.2). They also reduce dependence on CO2 removal, which can pose risks to biodiversity, food security, water resources and human rights.

When can a company claim that it has reached a state of net-zero emissions?



Reaching a state of net-zero emissions for a company involves achieving a state in which the company continues to create value to society and to shareholders without causing the accumulation of GHG in the atmosphere.

According to the SBTi Net-Zero Standard, a state of net-zero is reached when the following two conditions are met:

1. **Condition 1 – Science-based abatement:** Scope 1, 2 and 3 emissions have been reduced to zero or to a residual level that is consistent with reaching net-zero emissions at the global or sector level in eligible 1.5°C scenarios or sector pathways;

2. **Condition 2 – Neutralization:** The company neutralizes any residual GHGs released into the atmosphere at the net-zero target date and thereafter

RECAP: COMMIT TO AND SUBMIT NET-ZERO TARGETS

CALL-TO-ACTION

SBTI COMMITMENT LETTER

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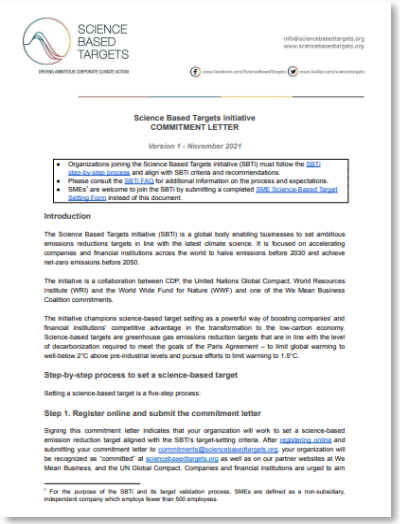
960 companies have already committed to net-zero through the Business Ambition for 1.5˚C Campaign.

Companies can commit by signing the SBTi commitment letter



SCIENCE BASED TARGETS

Science Based Targets initiative
COMMITMENT LETTER

Version 1 - November 2021

- Organizations joining the Science Based Targets initiative (SBTi) must follow the SBTi step-by-step process and align with SBTi criteria and recommendations.
- Please consult the SBTi FAQ for additional information on the process and expectations.
- SMEs[1] are welcome to join the SBTi by submitting a completed SME Science-Based Target Setting Form instead of this document.

Introduction

The Science Based Targets initiative (SBTi) is a global body enabling businesses to set ambitious emissions reductions targets in line with the latest climate science. It is focused on accelerating companies and financial institutions across the world to halve emissions before 2030 and achieve net-zero emissions before 2050.

The initiative is a collaboration between CDP, the United Nations Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF) and one of the We Mean Business Coalition commitments.

The initiative champions science-based target setting as a powerful way of boosting companies' and financial institutions' competitive advantage in the transformation to the low-carbon economy. Science-based targets are greenhouse gas emissions reduction targets that are in line with the level of decarbonization required to meet the goals of the Paris Agreement – to limit global warming to well-below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C.

Step-by-step process to set a science-based target

Setting a science-based target is a five-step process:

Step 1. Register online and submit the commitment letter

Signing this commitment letter indicates that your organization will work to set a science-based emission reduction target aligned with the SBTi's target-setting criteria. After registering online and submitting your commitment letter to commitments@sciencebasedtargets.org, your organization will be recognized as "committed" at sciencebasedtargets.org as well as on our partner websites at We Mean Business, and the UN Global Compact. Companies and financial institutions are urged to aim

[1] For the purpose of the SBTi and its target validation process, SMEs are defined as a non-subsidiary, independent company which employs fewer than 500 employees.

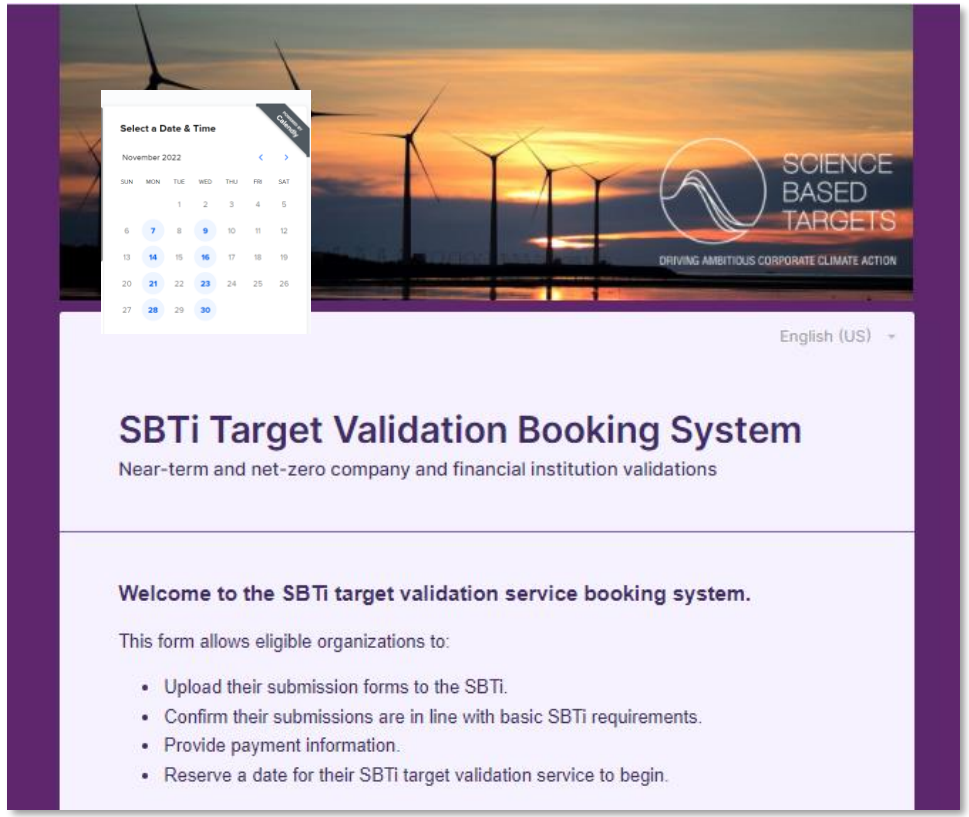
Commitment Process

1. Fill in and sign the SBTi commitment letter
2. Register via the online commitment form and upload your completed SBTi commitment letter
3. SBTi performs due diligence and approves commitment
4. Announce your commitment

In addition, to align with the most ambitious aim of the Paris Agreement and to what science dictates is necessary to reduce the destructive impacts of climate change on human society and nature - to reach net-zero global emissions by 2050 at the latest in order to limit global warming to 1.5°C - my company is committing to:

☐ **Set net-zero targets, including a long-term science-based target:** My company commits to set a long-term science-based target to reach net-zero value chain GHGs emissions by no later than 2050 in line with the SBTi Net-Zero Standard, submit it for SBTi validation and publish it, all within a maximum of 24 months. By committing to set a net-zero target, I also acknowledge that my company will be part of the Business Ambition for 1.5°C campaign. My company will also join the Race to Zero campaign.[3,4,5]

The SBTi officially began validating net-zero targets in January 2022



Companies reserve a slot to have targets validated through the validation booking system.

The booking system allows companies to:

- Upload their complete submission forms to the SBTi.
- Screening questions to confirm submission is in line with basic SBTi requirements.
- Reserve a date for their SBTi target validation service to begin.
- Provide payment information*.

Companies have booked NZ slots until Sep 2022. The SBTi is expanding resourcing and working diligently to move companies forward.

*To support our operating costs, the fee for the target validation service is USD 9,500 (+ applicable VAT) or USD 1,000 (+ applicable VAT) for SMEs. Net zero package submissions cost USD 14,500.

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Thank you!

Any questions?

Please feel free to contact us at
info@sciencebasedtargets.org