

Sustainability DIY

Science-based emission reduction targets

Journey 3



The background is a dark teal color. At the top, there are two stylized clouds: a larger blue one on the left and a smaller teal one on the right. In the bottom right corner, there is a cluster of stylized green leaves and a teal circular pattern. At the bottom left, there is a small illustration of a purple textured circle, a pink textured circle, and a green leaf.

DIY your science-based emission reduction targets

Journey 3 Develop your targets

Disclaimer: This resource has been developed by Sustain Labs Paris & Microsoft to support the use of SBTi's Standards and tool for setting targets. It is not an initiative of SBTi or endorsed by SBTi.



But first - Are you an SME?

If yes

Then jump to page 22

If no

Then keep going...



Science-based targets (SBTs)

SBTs are near-term targets that meet the criteria and recommendations of SBTi. Targets must cover a minimum of 5 years and a maximum of 10 years from the date the target is submitted to SBTi for validation.



Science-based net-zero targets

These are longer-term targets - by 2050 at the latest. SBTi defines the state of net-zero emissions for companies as reaching a state of no impact on the climate resulting from the organization's GHG emissions.¹

Reaching a status of science-based net-zero emissions implies the following 2 conditions:

1. Achieving a scale of value-chain emissions reductions consistent with the depth of abatement at the point of reaching global net-zero in pathways that limit warming to 1.5°C with no or low overshoot.
2. Neutralizing the impact of any source of any residual emissions by permanently removing an equivalent volume of atmospheric CO₂

Step 1: Complete a full and recent GHG inventory/screening of Scope 1, 2 and 3 emissions²

1. Complete a company-wide Scope 1 and 2 emissions inventory as defined by the:
 - GHG Protocol Corporate Standard
 - GHG Protocol Scope 2 Guidance.
2. Complete a Scope 3 screening for all relevant categories as per the:
 - GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.
 - Companies may use: GHG Protocol Scope 3 Calculation Guidance, Scope 3 Evaluator, and CDP Supply Chain Program as resources.
 - Report optional Scope 3 emissions, e.g., indirect use-phase emissions in "Use of Sold Product", separately from emissions in the minimum boundary of each Scope 3 category in the Target Submission Form.
3. Report offsets separately in the annual GHG inventory. Offsets do not count towards emission reductions.
4. Exclude avoided emissions from the inventory and do not count towards emissions reductions.
5. Report direct emissions from bioenergy separately from the inventory, with more details under SBTi Criteria and the Target Validation Protocol

A company can commit to setting an SBT in parallel to performing a full Scope 1, 2 and 3 GHG inventory.

All relevant Scope 3 sources must be calculated before submitting the target.



Step 2: Check for your significant Forest, Land and Agriculture (FLAG) emissions

1. Disaggregate FLAG emissions within the GHG inventory to set separate FLAG targets.³
2. Use the guidance: [FLAG Science-Based target setting guidance](#), and the [GHG Protocol Land Sector and Removals Guidance Project](#).

Companies required to set FLAG targets:⁴

(i) Companies from the FLAG-designated sectors that are required to set FLAG targets:

- Forest and paper products—forestry, timber, pulp and paper, rubber.
- Food production: agricultural production.
- Food production: animal source.
- Food and beverage processing.
- Food and staples retailing.
- Tobacco

(ii) Companies with FLAG-related emissions that **total 20% or more of overall emissions across Scopes 1, 2 and 3.**

3 - Science Based Targets. (2023, April). *Getting Started Guide for Science-Based Target Setting*. (pg. 2)

4 - Science Based Targets. (2023, December). *FLAG Science-Based Target-Setting Guidance*. (pg. 13)

Step 2: Check for your significant FLAG emissions (contd.)⁵

Companies that meet (i) or (ii) in the previous page and are in the process of setting targets or updating existing targets are required to also set FLAG targets.

Companies that meet (i) or (ii) in the previous page and submit targets for recalculation based on SBTi target recalculation criteria must add a FLAG target within 6 months after the release of the final version of the GHG Protocol Land Sector and Removals Guidance.

Companies recommended to set FLAG target

It is recommended that companies with FLAG-related emissions that fall below the 20% threshold should nonetheless set a FLAG target. If a company chooses not to set a FLAG target, FLAG-related emissions still must be included in the overall energy/industry (non-FLAG) target boundary. This is important to ensure a complete GHG inventory and target coverage. No FLAG biogenic removals can be included in the target boundary if an energy/industry (non-FLAG) target is used.

Step 3: Set your near-term science-based targets⁶

Supporting documents

1. [SBTi Corporate Manual](#)
2. [SBTi Criteria and Recommendations](#)
3. [Target Validation Protocol](#)
4. [Target Setting Tool](#)

Scope 1 and 2

Temperature, time frame, and emissions coverage

Since V 5.0 of the SBTi Criteria, companies must set **1.5°C-aligned Scope 1 and 2 targets**, which must be achieved within **5-10 years** from the date the target is submitted to the SBTi for validation. A **maximum of 5%** of Scope 1 and 2 emissions combined can be excluded from the target.

Methods

- **Absolute reduction:** all companies (apart from FLAG, power, and maritime who must follow sector guidance) reduce emissions at a minimum of 4.2% annually.
- **Sector-specific pathways:** can be absolute reduction or intensity convergence depending on the sector
- **Renewable electricity (Scope 2):** source renewable electricity at a rate that is consistent with 1.5°C scenarios:
 - 80% renewable electricity procurement by 2025 and
 - 100% by 2030 as thresholds

Step 3: Set your near-term science-based targets (contd.)⁷

Scope 3	Scope 3 is less than 40% of overall emissions	Methods
	No Scope 3 target required, although <u>encouraged as best practice</u> . See requirements below.	
	Scope 3 is 40% or more of overall emissions	
	Companies must set one or more emission reduction targets and/or supplier/customer engagement targets that collectively cover at least 67% of total Scope 3 emissions in conformance with the <u>GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard</u> . Scope 3 target(s) must be aligned with well-below 2°C pathways and targets achieved within 5-10 years from the date the target is submitted to SBTi for validation.	<ul style="list-style-type: none">• Absolute reduction• Sector-specific pathways• Economic Intensity• Physical Intensity• Supplier/customer engagement• Or a combination. Please see pg. 24 onwards of <u>SBTi Corporate Manual</u>• If you have Scope 3 operations with transportation emissions. or are in the power or FLAG sectors, please check the sectoral guidance

Sector-specific guidance to set targets

Review and follow the sector-specific guidance and tools available if your company is among the following sectors. The company for which sector-specific tools are not available will use the cross-sector pathway (absolute targets only).⁸

Sector	Sector-specific guidance available	Sector-specific tools available for near-term or long-term targets
Apparel and footwear	https://sciencebasedtargets.org/sectors/apparel-and-footwear	
Aviation* (Status: In development)	https://sciencebasedtargets.org/resources/files/SBTi_AviationGuidanceAug2021.pdf	https://sciencebasedtargets.org/resources/files/SBTi_Aviation_Tool.xlsx Aviation can set physical intensity targets using the aviation pathway or the cross-sector pathway (absolute targets only).
Cement	https://sciencebasedtargets.org/sectors/cement	
Financial Institutions	https://sciencebasedtargets.org/sectors/financial-institutions (The SBTi cannot validate long-term targets for this sector before the Net-Zero Standard is released. Version 2 of near-term target setting guidance to be published in 2023)	https://sciencebasedtargets.org/resources/files/Financial-Institutions-target-setting-tool.xlsx
FLAG	https://sciencebasedtargets.org/sectors/forest-land-and-agriculture	https://sciencebasedtargets.org/resources/files/SBTiFLAGTool.xlsx

Sector-specific guidance to set targets (contd.)

Review and follow the sector-specific guidance and tools available, if your company is among the following sectors. The company for which sector-specific tools are not available will use the cross-sector pathway (absolute targets only).⁹

Sector	Sector-specific guidance available	Sector-specific tools available for near-term or long-term targets
Information and Communication Technology	https://sciencebasedtargets.org/sectors/ict	
Maritime*	https://sciencebasedtargets.org/sectors/maritime-sector	https://sciencebasedtargets.org/resources/files/SBT-Maritime-Transport-tool.xlsx
Steel	https://sciencebasedtargets.org/sectors/steel	https://sciencebasedtargets.org/resources/files/SBTi-Steel-Target-Setting-Tool.xlsx
Power	https://sciencebasedtargets.org/sectors/power	
Transport (Status: In development)	https://sciencebasedtargets.org/resources/legacy/2018/05/SBT-transport-guidance-Final.pdf	https://sciencebasedtargets.org/resources/files/SBTi-target-setting-tool.xlsx (Model scope 1 and 2 targets) https://sciencebasedtargets.org/resources/files/SDA-Transport-tool.xlsx (Model Scope 3 targets) https://sciencebasedtargets.org/wp-content/uploads/2019/03/SDA-tool-for-PLDV-manufacturers_v1.0_final.xlsx (For PLDV manufacturers)

*For all transport-related emissions across all sectors, companies should report these emissions on a Well-to-Wheel (WTW) basis in their GHG inventory (Well-to-wake for aviation and maritime transport).

⁹ - Science Based Targets. (n.d.). *Sector Guidance*. <https://sciencebasedtargets.org/sectors>

Sector-specific guidance to set targets (contd.)

Temporary suspensions for specific sectors by SBTi:

FLAG

The SBTi is temporarily suspending the use of the timber and wood fiber pathway included in the FLAG Target-Setting Tool. This will come into effect on January 15, 2024. While this temporary suspension is in effect, companies in the forest and paper products sectors will be required to use the FLAG sector pathway to set science-based targets for all land-based emissions, including those related to timber and wood fiber.¹⁰

Transport

The SBTi is temporarily pausing near- and long-term target validations and target updates for **automakers** until 1.5°C Scope 3 targets for use-phase emissions from new road vehicles are developed and approved. This decision is effective as of March 28, 2022. Companies with existing commitments will be granted extensions if affected by this policy. Further updates will be shared in the first quarter of 2024.

These companies cannot submit Scope 3, Category 11, targets until 1.5°C-aligned pathways for new road vehicles are released. This applies to all newly manufactured road vehicles classified as: new light duty passenger vehicles, new light commercial vehicles, new medium freight trucks, and new heavy freight trucks.¹¹


10 - Science Based Targets. (n.d.). *Forest, Land and Agriculture (FLAG)*. <https://sciencebasedtargets.org/sectors/forest-land-and-agriculture>

11 - Science Based Targets. (n.d.). *Transport*. <https://sciencebasedtargets.org/sectors/transport>

Step 4: Ensure that your near-term science-based targets align with the Net-Zero Standard (which means your near-term science-based targets meet the near-term criteria in the Net-Zero Standard and the current SBTi criteria)¹²

<p>What temperature goal should your company align its Scope 1 and 2 targets to?</p>	<p>1.5°C minimum</p> <p>Any company (except those in the power, maritime, and FLAG sectors) can use the cross-sector absolute reduction method to set 1.5°C targets. Companies in the power, maritime and FLAG sectors must use sector-specific intensity convergence methods to set 1.5°C targets. Refer to the Planned 1.5°C Pathways for your sector.</p>	<p>What is the target timeframe for your near-term SBTs?</p>	<p>5-10 years from submission</p> <p>Near-term SBTs must have a 5-10 year time frame from submission. Companies that already have validated SBTs are not required to update targets to meet the reduced time frame requirements.</p>
<p>What temperature goal should your company align its Scope 3 target to?</p>	<p>Well-below 2°C minimum</p> <p>Near-term Scope 3 targets must be aligned with well-below 2°C or more ambitious scenarios. Supplier engagement targets are eligible for near-term only.</p>		

12 - Science Based Targets. (2023, April). *Getting Started Guide for Science-Based Target Setting*. (pg. 4)



Decide if your organization wants to commit to net-zero*¹³

If no

Ensure step 4 is complete, and you can submit your near-term targets (only) for validation.

If your existing near-term science based targets do not meet the net-zero criteria, complete the SBTi near-term target update form.

If yes

Ensure step 4 is complete, and prepare to develop long-term targets.

*It is not mandatory to set net-zero targets. However, companies that are committed to the SBTi on or after 15 July, 2022, are required to align themselves with a 1.5°C pathway.¹⁴

13 - Science Based Targets. (2023, April). *Getting Started Guide for Science-Based Target Setting*. (pg. 2)

14 - Science Based Targets. (n.d.). *FAQs - Science Based Targets*. <https://sciencebasedtargets.org/faqs>

Step 5: Check the criteria for both near-term and long-term science-based targets¹⁵

Legend

Not eligible

1.5°C ambition

Well below 2°C ambition

		Scope 1 and 2			Scope 3			
Near-term science-based targets	Target boundary	95% coverage of Scopes 1 and 2			If Scope 3 > 40% total emissions boundary to cover minimum 67% of Scope 3			
	Target year	5-10 years from date of submission (except maritime)			5-10 years from date of submission			
	Method, eligibility, and minimum ambition	<i>Method</i>	Absolute reduction	Sector-specific intensity convergence	Renewable electricity (Scope 2 only)	Cross-sector absolute reduction	Sector-specific intensity convergence	Supplier or customer engagement
	<i>Eligibility and minimum ambition</i>	<ul style="list-style-type: none"> Minimum of 4.2% linear annual reduction (LAR) dependant on base year. Exception: FLAG pathway is 3.03% LAR 	<ul style="list-style-type: none"> Depends on sector and company inputs 	<ul style="list-style-type: none"> 80% renewable energy by 2025 100% renewable energy by 2030 	<ul style="list-style-type: none"> 2.5% LAR 	<ul style="list-style-type: none"> Depends on sector and company inputs 	<ul style="list-style-type: none"> E.g. 80% of suppliers by emissions by 2025 	<ul style="list-style-type: none"> 7% year-on-year (both options)

Step 5: Check the criteria for both near-term and long-term science-based targets (contd.)¹⁶

Legend

Not eligible

1.5°C ambition

Well below 2°C ambition

		Scope 1 and 2			Scope 3			
Long-term and net-zero science-based targets	Target boundary	95% coverage of Scopes 1 and 2			90% coverage of Scope 3			
	Target year	2050 or sooner (2040 for the power sector and maritime)			2050 or sooner			
	Method eligibility and minimum ambition	<i>Method</i>	Absolute reduction	Sector-specific intensity convergence	Renewable electricity (Scope 2 only)	Cross-sector absolute reduction	Sector-specific intensity convergence	Supplier or customer engagement
	<i>Eligibility and minimum ambition</i>	<ul style="list-style-type: none"> 90% reduction (cross-sector or pathway) 72% reduction for FLAG Other sector pathways vary 	<ul style="list-style-type: none"> Sector/commodity pathways vary 	<ul style="list-style-type: none"> 100% RE 	<ul style="list-style-type: none"> 90% reduction (cross-sector or pathway) 72% reduction for FLAG Other sector pathways vary 	<ul style="list-style-type: none"> Sector/commodity pathways vary 	<ul style="list-style-type: none"> Methods are not eligible for long-term SBTs 	<ul style="list-style-type: none"> 97% reduction (both options)

Step 6: Set long-term net-zero science-based targets¹⁷

Method name	More about the method	Which companies can use this method?	Which emission scopes does it apply to?
Cross-sector absolute reduction	Absolute emissions are reduced by an amount that is, at minimum, consistent with the cross-sector pathway. Also referred to as ‘absolute contraction’. The minimum reduction is calculated as an overall amount (e.g., 90% overall for the cross-sector pathway).	All companies, except for companies in power, maritime or FLAG sectors.	All scopes
Sector-specific absolute reduction	Absolute emissions are reduced by an amount that is, at minimum, consistent with a sector-specific pathway.	FLAG, iron and steel, cement and buildings (services and residential).	All scopes
Sector-specific intensity convergence	Physical emissions intensity targets are calculated based on all companies in a sector converging to a sector-specific emissions intensity by 2050 or sooner. Also referred to as “physical intensity convergence” or “SDA”. For long-term targets, the target emissions intensity is equal to the sector’s emissions intensity in 2050 (2040 for the power sector and maritime transport).	Recommended for companies in heavy-emitting sectors, or companies with a significant proportion of emissions attributed to heavy-emitting sectors. Refer to FLAG commodity pathways and your sector’s pathways.	All scopes
		FLAG commodity pathways <ul style="list-style-type: none"> ● Beef ● Chicken ● Dairy ● Maize ● Leather ● Palm Oil ● Rice ● Wheat ● Pork ● Soy ● Timber and wood fibre 	

Step 6: Set long-term net-zero science-based targets (contd.)¹⁸

Method name	More about the method	Which companies can use this method?	Which emission scopes does it apply to?
Renewable electricity	Companies actively procure at least 80% renewable electricity by 2025 and 100% renewable electricity by 2030.	All companies	Scope 2
Scope 3 economic intensity reduction	Economic emissions intensity is reduced by an amount that is at minimum. Consistent with limiting warming to 1.5°C. The minimum reduction is calculated as an overall 97% reduction.	All companies	Scope 3
Scope 3 physical intensity reduction	Physical emissions intensity is reduced by an amount that is, at minimum, consistent with 1.5°C. The minimum reduction is calculated as an overall 97% reduction.	All companies	Scope 3

Gathering data to set target(s)

Data gathering Tool - SBTi is specifically designed to gather data required by the target setting and the net-zero tool to set emission reduction science-based targets.

Access the Data gathering Tool - SBTi:

<https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RW1gaPv>

Watch the video on how to use the tool:

<https://www.microsoft.com/en-us/videoplayer/embed/RW1gaPk>

Please note that the **Data gathering Tool - SBTi** is designed to assist companies in setting emission reduction targets using SBTi tools, rather than replace them. It is recommended that companies refer to the SBTi guidance documents when compiling data to obtain information to set targets.



Step 7: Review the [Target Validation Protocol](#) to determine if the underlying principles, process, and criteria followed to assess targets confirm with the SBTi criteria and sector-specific requirements¹⁹

Align your emission reduction goals on [Microsoft Sustainability Manager](#). It helps collect quantitative emissions data and track progress against [Science Based Targets initiative \(SBTi\)](#) designations.²⁰


19 - Science Based Targets. (n.d.). *How to set a science-based target - a step by step guide*.

<https://sciencebasedtargets.org/step-by-step-process>

20 - Microsoft. (2023, June 15). *Introducing new ESG data and reporting capabilities in Microsoft Cloud for Sustainability*

<https://www.microsoft.com/en-us/industry/blog/sustainability/2023/06/15/introducing-new-esg-data-and-reporting-capabilities-in-microsoft-cloud-for-sustainability/>





Has SBTi already validated your company's near-term science-based targets, and you want to submit long-term targets as part of a net-zero commitment?²¹

Ensure your current near-term science-based targets meet the Net-Zero Standard's ambition requirements.

Review your near-term targets in compliance with the SBTi's "mandatory target recalculation" criteria if those targets were validated more than 5 years ago. Resubmit your targets for validation if recalculation is triggered.

You can resubmit your near-term targets in case of any updates as part of a net-zero package submission.



Are you an SME?

If yes

then pages 23 - 25 are for you.

Step 1: Select the target for your company

There are 3 target options for SMEs²²

1. **Near-term science-based targets:** These are absolute Scope 1 and 2 GHG emissions reduction targets that should be achieved by 2030, from a predefined base year.
2. **Near-term maintenance targets:** Enable companies that have achieved zero Scope 1 and/or 2 emissions to sustain their efforts and continuously improve. The SME must follow GHG protocol standards, report their progress annually, and provide supporting documentation for target validation. Additionally, they can select the maintenance approach that aligns with their specific emissions profile.
3. **Net-zero targets:** There are 2 types of net-zero targets
 - a. **Long-term science-based targets:** These are comprehensive, absolute reductions in Scope 1, 2, and 3 GHG emissions, with a goal to achieve them no later than 2050, from a predefined base year.
 - b. A commitment to neutralize any unabated emissions when the long-term science-based target is achieved.

22 - Science Based Targets. (n.d.). *Set a target as a small or medium-sized enterprise (SME)*.
<https://sciencebasedtargets.org/small-and-medium-enterprise-sme-target-setting-process>



Step 2: Complete a recent, comprehensive GHG emissions inventory

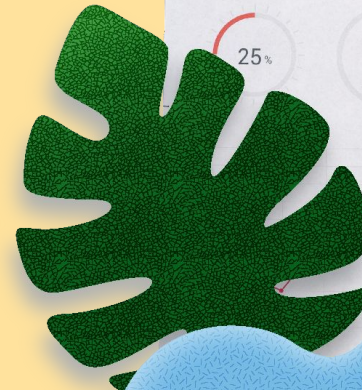
For emissions accounting to set near-term science-based targets follow:²³

- Greenhouse Gas Protocol Corporate Accounting and Reporting Standard
- Scope 2 Guidance

If you want to set net-zero science-based targets, for emissions accounting follow:²⁴

- Greenhouse Gas Protocol Corporate Accounting and Reporting Standard
- Scope 2 Guidance
- Greenhouse Gas Protocol Value Chain (Scope 3) Accounting and Reporting Standard

23, 24 - Science Based Targets. (2023, May). *Target Validation Application Checklist for Small and Medium Sized Enterprises*. (pg. 4-6)



Step 3: Review the [Target Validation Application Checklist for Small and Medium Sized Enterprises](#) to see if you have all the information necessary to validate your target as per SBTi

Please note:²⁵

- Your company cannot exclude more than 5% of Scope 1 and Scope 2 emissions combined
- To be eligible to set a net-zero target, SMEs must first set near-term targets aligned to a 1.5°C pathway.





Next step!

**Prepare to submit your company's targets
for validation.²⁶**

26 - Science Based Targets. (n.d.). *How to set a science-based target - a step by step guide.*
<https://sciencebasedtargets.org/step-by-step-process>