

CHEMICALS SECTOR CRITERIA

Pilot Testing Outcomes Report

ABOUT THE SBTi

The Science Based Targets initiative (SBTi) is a corporate climate action organization that enables companies and financial institutions worldwide to play their part in combating the climate crisis.

We develop standards, tools and guidance which allow companies to set greenhouse gas (GHG) emissions reductions targets in line with what is needed to keep global heating below catastrophic levels and reach net-zero by 2050 at latest.

The SBTi is incorporated as a UK charity, with a subsidiary SBTi Services Limited, which hosts our target validation services. Partner organizations who facilitated SBTi's growth and development are CDP, the United Nations Global Compact, the We Mean Business Coalition, the World Resources Institute (WRI), and the World Wide Fund for Nature (WWF).

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ABOUT THIS DOCUMENT

This document presents a summary of the outcomes of pilot testing performed on the **SBTi Chemicals Sector Target-setting Criteria***, the **SBTi Chemicals Target-Setting Tool**, the **draft SBTi Services Chemicals Annex target submission form**, and the **SBTi Chemicals Sector Target-setting Criteria Assessment Indicators (CAIs)**.

It outlines an overview of the results of the pilot testing, including areas noted for improvement and feedback received by pilot testing participants. Where possible, this report also includes how these outcomes have informed the final draft of the Chemicals Sector Target-setting Criteria*, the Target-Setting Tool, the SBTi Services Chemicals Annex, and the CAIs.

Thank you to all pilot testing participants that volunteered to support the SBTi during this process.

*Subsequent to the pilot testing, the title of the normative document was changed to the *SBTi Chemical Sector Pathways and Implementation Criteria*.

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- Disclaimer





BACKGROUND INFORMATION



ABOUT THE CHEMICALS SECTOR DEVELOPMENT PROJECT

- The SBTi Chemical Sector Pathways and Implementation Criteria is intended to **help companies in the chemicals industry set science-based climate targets** by addressing the sector's unique challenges in the climate transition, while maintaining alignment with the ambition needed to prevent catastrophic warming.
- [Chemicals Sector Status Report \(January 2023\)](#).
- [Chemicals Sector Guidance Development Terms of Reference \(April 2024\)](#).

CHEMICALS SECTOR DEVELOPMENT PROCESS

AN OVERVIEW OF THE PILOT TESTING PROCESS:

- The SBTi held an **open application process** from **December 2, 2024 through January 10, 2025** for companies to apply to participate in the process.
- The pilot testing was open to companies with activities covered by the criteria:
 - Producers of primary chemicals.
 - Producers of other base chemicals.
 - Producers of intermediate chemicals.
 - Producers of specialty chemicals.
 - Producers of pharmaceuticals.
 - Producers of consumer chemicals.
 - Chemical recycling activities.
- Participants were invited to maximize representation based on:
 - Region.
 - Chemicals sector subsectors (see above).
 - Business profile, such as:
 - Integrated companies producing multiple product types.
 - Specialized companies.
 - Emissions profile.
 - Business size.
- The SBTi used its best endeavors to achieve diversity among pilot test companies, however, the outcomes of the pilot test are not be invalidated by the inability to achieve an optimum level of diversity.



For questions related to this report
and the Chemicals Sector
Development Project in general,
please contact:

chemicals@sciencebasedtargets.org

CHEMICALS SECTOR DEVELOPMENT PROCESS

PURPOSE OF THE PILOT TESTING PROCESS:

The pilot testing was conducted in order to:

Ensure the Chemicals Sector Target-Setting Criteria are robust, clear and practical.

Identify any challenges for implementing the Chemicals Sector Target-Setting Criteria across the applicable activities within the chemicals sector.

Inform the development of the Chemicals Sector Target-Setting Criteria final draft before it is sent for approval.

Test the feasibility of validating companies against the standard and the clarity of the written requirements.

Evaluate the functionality and usability of the SBTi Services' validation tool and submission form.

Pilot testing addressed the draft Chemicals Sector Criteria ONLY. Criteria from other documents, such as the Corporate Net-Zero Standard were not considered.

CHEMICALS SECTOR DEVELOPMENT PROCESS

AN OVERVIEW OF THE PILOT TESTING PROCESS:

1. Organizations were invited to participate in the pilot testing process. Participation was governed by the [Chemicals Pilot Test Participant Terms of Reference](#).
2. The SBTi held an introductory meeting with participants and provided all required materials for the pilot, including drafts of the:
 - Chemicals Sector Target-setting Criteria;
 - Supplemental Data Memorandum for the Chemicals Sector Target-setting Criteria;
 - Chemicals Sector Target-setting Tool;
 - SBTi Services Chemicals Annex target submission form; and
 - Chemicals Sector Target-setting Criteria Assessment Indicators (CAIs)
3. Participants had approximately **6 weeks** to develop their target submission data. During this period the SBTi held **open office hours, provided written responses to queries, and met directly with participants to answer questions**.
4. Participants submitted **their real-world company data** to SBTi Services, based on **applicable chemicals-specific criteria**. Data was submitted using the draft **SBTi Services Chemicals Annex target submission form**.
5. SBTi Services assessed the data using the **draft CAIs** and provided a summary of the assessment with feedback to participants, and a report to the SBTi project team on outcomes.
6. Participants were given the option to complete a feedback survey on the process.

CHEMICALS SECTOR DEVELOPMENT PROCESS

HOW FEEDBACK WILL BE ADDRESSED

In this report, the SBTi provides a **summary of the main themes identified during the pilot testing, including feedback received via the participant survey**. Where possible, the SBTi also has indicated revisions that were made based on the pilot testing results.

This report does **not** include identification of the participant organizations or information about any submitted data or the resulting pilot targets.

As part of the final publication of the project outputs, **the SBTi has published a full [Basis of Conclusions Report](#)**, which will include a summary of all major comments received from stakeholders during the project, and the rationale behind the final decisions made.

Revisions to the draft were made by the SBTi project team and approved by the SBTi's Chief Technical Officer and the SBTi Technical Council. Please see the project's [Basis for Conclusions Report](#) for more detail on the development process.



BACKGROUND INFORMATION

PILOT TESTING PARTICIPANT SUMMARY

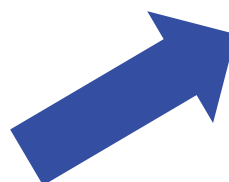
22

Organizations **applied** to participate in pilot testing



11

Organizations **accepted invitations** to participate*



Operational Activities of Invited Organizations**

- Production of primary chemicals
- Producers of other base chemicals
- Producers of intermediate chemicals
- Producers of specialty chemicals
- Producers of pharmaceuticals
- Producers of consumer chemicals
- Chemical recycling

Region of Invited Organization Headquarters

Middle East & Africa - 2 companies

Asia Pacific & Oceania - 3 companies

Europe - 5 companies

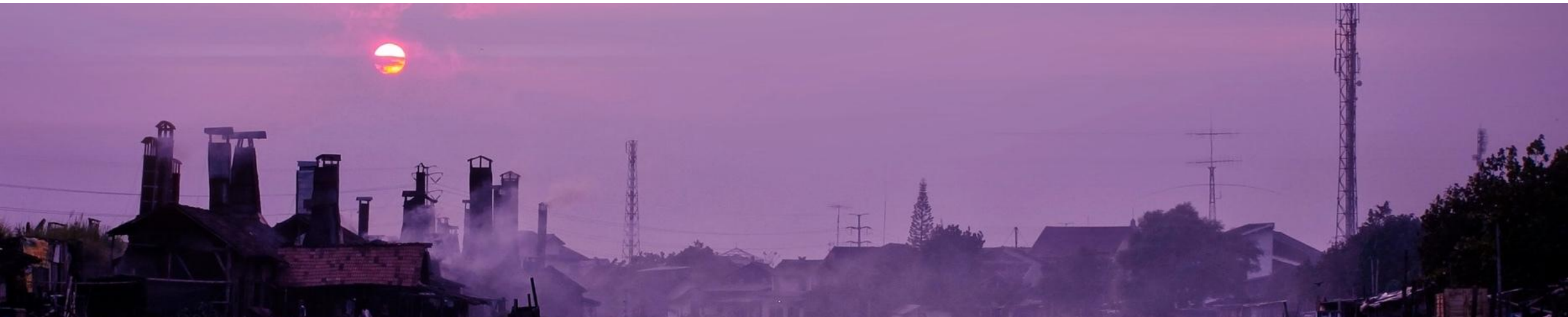
North America - 1 company

*The SBTi evaluated applications against criteria as outlined in the [Chemicals Sector Pilot Testing Terms of Reference](#)

**Activities based on information provided by organizations in their application. Activities within a company operational profile does not imply that targets will be set using the Chemicals Criteria on all activities, as several criteria are optional.

PARTICIPANTS | GAPS IN PARTICIPATION

- The SBTi did not receive any applications from companies with headquarters in Latin America.
- The number of applicants that produced primary chemicals was relatively limited
- Of the 11 organizations that accepted invitations to participate, 5 submitted pilot targets to the SBTi for review.
 - Several participants cited a lack of time and/or resources for not providing a submission within the process timeframe.
 - 1 participant cited a lack of accessible data needed to develop targets.





PILOT TESTING OUTCOMES

DATA SUBMISSION SUMMARY

The below table summarizes which criteria were addressed within the target data submissions to the SBTi. The pilot testing utilized the [Chemicals Sector Target-Setting Criteria Second Consultation Draft](#); therefore the criteria noted below and in the following slides may be different from those in the final document.

CHEM-C1: Ammonia Production SDA Method	Yes	CHEM-C7: Scope 3 Category 11 Emissions from Urea-based Fertilizers	Yes
CHEM-C2: Methanol Production SDA Method	No	CHEM-C8: Scope 3 Category 11 Near-term Target-setting for Fertilizer Use-phase N ₂ O Emissions	Yes
CHEM-C3: HVC Production SDA Method	Yes	CHEM-C9: Scope 3 Category 11 Long-term Target-setting for Fertilizer Use-phase N ₂ O Emissions	Yes
CHEM-C4: Scope 1 N ₂ O Emissions Target-setting for Nitric Acid Production	Yes	CHEM-C10: Combined Targets: SDA Targets and Other Scope 3 Targets	No
CHEM-C5: Combined Targets: SDA Targets and Other Scope 1 and 2 Targets	Yes	CHEM-C11: Near-term Alternative Feedstock Targets	Yes
CHEM-C6: Scope 3 Category 1 Emissions from Purchased Primary Chemicals	Yes	CHEM-C12: Mass Balance Accounting	Yes

DATA SUBMISSION SUMMARY

Two criteria were not addressed in target submissions. The table below includes an assessment of risks due to not testing the criteria.

Criteria	Risk from lack of piloting	Impact on pilot
CHEM-C2: Methanol Production SDA Method	Low	<ul style="list-style-type: none">• The methanol production SDA pathway uses the existing SDA target-setting method, which has been established for use in several sectors by the SBTi.• The methanol production SDA pathway is based on the IEA's NZE scenario, a credible and well established dataset.• The pathway has been available for review during the 1st and 2nd public consultation periods. The SBTi received no comments on pathway data.
CHEM-C10: Combined Targets: SDA Targets and Other Scope 3 Targets	Low	<ul style="list-style-type: none">• Criterion CHEM-C10 was subsequently removed during final revisions to the document.

PILOT TESTING - SOURCES OF FEEDBACK

Feedback and outcomes from the pilot testing were obtained via the following sources. All feedback was considered by the SBTi as summarized in this report.

1. **Direct feedback from participants:** The SBTi received feedback from pilot testing participants via written queries and meetings throughout the process. This feedback has been included in this report.
2. **Direct feedback from SBTi Services:** SBTi Services provided the project team with a summary of the pilot testing validation outcomes, including recommendations to be considered in the criteria and supporting documentation.
3. **Feedback via participant survey:** Pilot testing participants were given the opportunity to complete a survey on their experience using the Chemicals Sector Target-setting Criteria, and on their experience during the pilot testing. Due to a limited response rate, detailed analysis of the survey responses have not been included in this report. However the feedback was considered and included in the summary herein.

PILOT TESTING KEY LEARNINGS - AREAS OF IMPROVEMENT

Specific areas of improvement identified during the pilot testing are summarized

1. Improved clarity in applicability in the **Chemicals Sector Target-setting Criteria**

Description of Outcome	Type of Revision	Actions
<p>Several areas were noted in which additional clarity is needed in the criteria language to describe how users should determine individual criteria applicability.</p> <p>For example, more clarity is needed in describing how to determine the combined scope 1, 2, and 3 emissions from production of carbon-containing materials for us in determining the applicability of criterion CHEM-C11.</p>	<p>Informative*</p> <p><i>*Informative revisions do not impact how criteria would be complied with</i></p>	<p>In the final version of the criteria, text has been updated in the applicability section for several existing criteria to make the analysis of applicability more clear.</p>

2. Improved clarity in **target submission form** and **Criteria Assessment Indicators (CAI)**

Description of Outcome	Type of Revision	Actions
<p>Several sections of the SBTi Services Chemicals Annex target submission form and Criteria Assessment Indicators were noted as lacking clear instructions, having inconsistent terminology, or other issues related to ease of use.</p> <p>For example, Section 2.3 lacks clear instructions on what data should be entered for each listed activity, leading to confusion for users.</p>	<p>Informative</p>	<p>Various updates have been made to improve clarity, address inconsistent terms, and improve the usability of the data collection process.</p>

PILOT TESTING KEY LEARNINGS - AREAS OF IMPROVEMENT

3. Need for more examples for criteria application in the **Chemicals Sector Target-setting Criteria**

Description of Outcome	Type of Revision	Actions
Pilot testing participants indicated the need for additional examples covering how to assess applicability and use the criteria.	Informative	The SBTi has added brief written examples where appropriate. For instance, examples were added to outline how targets are to be calculated using the SBTi Chemicals Sector Target-setting Tool.

4. Enhancements to the **Chemicals Sector Target-setting Tool**

Description of Outcome	Type of Revision	Actions
<ul style="list-style-type: none"> The SBTi determined the need for an additional tab in the Chemicals Sector Target-setting Tool that assist companies in calculating combined targets following the requirements in criteria CHEM-C5 and C10. Clarity is needed in the Tool regarding which scopes of emissions are eligible to be covered with an SDA target. 	Informative	<p>The SBTi has updated the Chemicals Sector Target-setting tool to include instructions on the "SDA Tool" tab to clarify which how the SDA targets may be applied to different emissions scopes.</p> <p>Criteria CHEM-C5 and CHEM-C10 have been subsequently removed from the final document, therefore they are not addressed in the Tool.</p>

PILOT TESTING KEY LEARNINGS - AREAS OF IMPROVEMENT

5. Revision of Applicability Thresholds for **Criteria CHEM-C1, C2, C3, C4, C8, and C9** *(continues next page)*

Description of Outcome	Type of Revision	Actions
<p>Based on the pilot testing results, the SBTi determined that a revision was needed for the applicability thresholds for several criteria. These criteria utilize a % threshold based on GHG emissions of relevant certain activities relative to the company's full GHG inventory. Therefore, the applicability of the criteria is influenced by the size of the full GHG inventory and the quantity of emissions from the specific emissions in question. In some cases, activities generating significant GHG emissions may represent a small portion of the inventory, and thus not be subject to relevant criteria, if the company's full GHG inventory is sufficiently large.</p> <p>Further, scope 3 emissions may represent a disproportionately large portion of chemical companies' GHG inventories. Comparing emissions of specific activities against a full scope 1, 2, and 3 GHG inventory may not be an appropriate threshold for determining significance.</p> <p>The current applicability thresholds in the draft criteria, and the revised applicability thresholds, are presented in the following page.</p>	<p>Normative</p> <p><i>*Normative revisions do impact how criteria would be complied with</i></p>	<p>See next slide.</p>

PILOT TESTING KEY LEARNINGS - AREAS OF IMPROVEMENT

5. Revision of Applicability Thresholds for **Criteria CHEM-C1, C2, C3, C4, C8, and C9** (*continued*)

Current Text	Revised Text	Impact
Criteria CHEM-C1, C2, and C3: Applies to companies that: <ul style="list-style-type: none"> Have (ammonia/methanol/HVC) production activities within their value chain which represent at least 5% of the sum of their total scope 1, 2 and 3 GHG emissions; and Choose to use the (ammonia/methanol/HVC) production SDA method. 	Criteria CHEM-C1, C2, and C3: Applies to companies that: <ul style="list-style-type: none"> Have (ammonia/methanol/HVC) production activities within their value chain; and Choose to use the (ammonia/methanol/HVC) production SDA method. 	Eliminating the % threshold for the application of criteria CHEM-C1, C2, and C3 will expand the availability of these criteria to any company with the relevant activities within their value chain, if they are able to meet the requirements of the criteria.
Criteria CHEM-C4: Applies to companies that: Have nitric acid production activities within their value chain which represent at least 5% of the sum of their total scope 1, 2 and 3 GHG emissions .	Criteria CHEM-C4: Applies to companies that: Have nitric acid production activities within their value chain which represent at least 5% of their total scope 1 GHG emissions .	Limiting the threshold calculation for criterion CHEM-C4 to include scope 1 emissions only is intended to avoid the exclusion of companies with significant scope 1 emissions from nitric acid production which may represent less than 5% of the full GHG inventory, if scope 3 emissions are substantial.
Criteria CHEM-C8 and C9: Applies to companies that: Have N ₂ O emissions from the use-phase of nitrogen fertilizers in their scope 3 category 11 inventory which represent at least 5% of the sum of their total scope 1, 2 and 3 GHG emissions .	Criteria CHEM-C8 and C9: Applies to companies that: Have N ₂ O emissions from the use-phase of nitrogen fertilizers in their scope 3 category 11 inventory which represent at least 5% of their total scope 3 GHG emissions .	Limiting the threshold calculation for criteria CHEM-C8 and CHEM-C9 to include scope 3 emissions only will expand the availability of these criteria to more companies with the relevant emissions in their value chain.

PILOT TESTING KEY LEARNINGS - AREAS OF IMPROVEMENT

6. Clarity on scopes of emissions eligible to be combined under criteria CHEM-C5 and C10

Description of Outcome	Type of Revision	Actions
It was noted that there is uncertainty in how to apply criterion CHEM-C5, specifically regarding which scopes of emissions may be combined between SDA targets, which may contain some sources of scope 3 emissions, and non-SDA scope 1 and 2 targets.	Informative	Criteria CHEM-C5 and CHEM-C10 have been subsequently removed from the final document, therefore this outcome is no longer relevant.

PILOT TESTING KEY LEARNINGS - AREAS OF SUCCESS

The SBTi received supportive feedback about the criteria and pilot testing process, as outlined below.

Participants were appreciative of the SBTi's **responsiveness during the opportunities for engagement** during the target development phase of pilot testing.

Participants noted that the pilot testing identified **areas of improvement needed in their own data collection practices**.

Participants expressed that their **understanding of the criteria** increased during the pilot.

Respondents to the survey gave average or better scores to the **clarity of the criteria language on applicability and requirements**, as well as the **usability of the Chemicals Sector Target-setting Tool**.

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DISCLAIMER

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