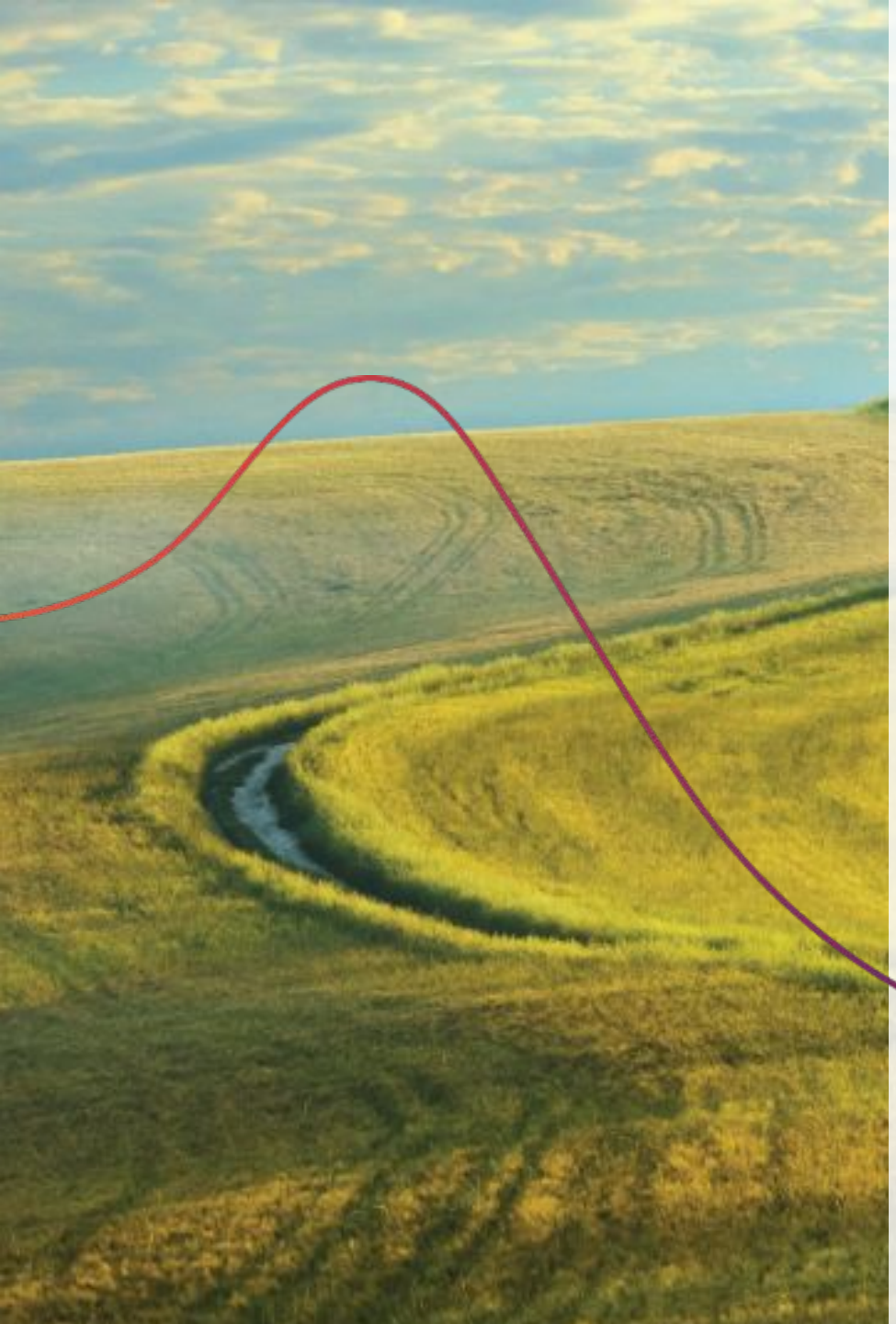


SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

CHEMICALS SECTOR GUIDANCE

First Public Consultation Feedback Report

October 2024

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 charity, with a subsidiary which will host our target validation services. Our partners 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).

PARTNERS

ABOUT THIS DOCUMENT

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

This document presents a summary of the feedback received during the first round of public consultation on the SBTi Chemicals Sector Guidance and the SBTi Chemicals Target-Setting Tool.

It outlines an overview of the feedback received and how this feedback will inform the next draft of the Chemicals Sector Guidance and Target-Setting Tool. The full log of feedback received during this consultation round can be found here: Chemicals Sector Guidance Feedback Log. Please note that the feedback log refers to this Feedback Summary Report for comments that have been addressed in this report.

Thank you to all stakeholders that submitted feedback in response to the public consultation, or engaged in any way during the public consultation. If you would like to provide input but faced barriers in doing so, please get in contact at chemicals@sciencebasedtargets.org.

Image by Andreluiz Cunha from Pixabay

SCIENCE BASED TARGETS

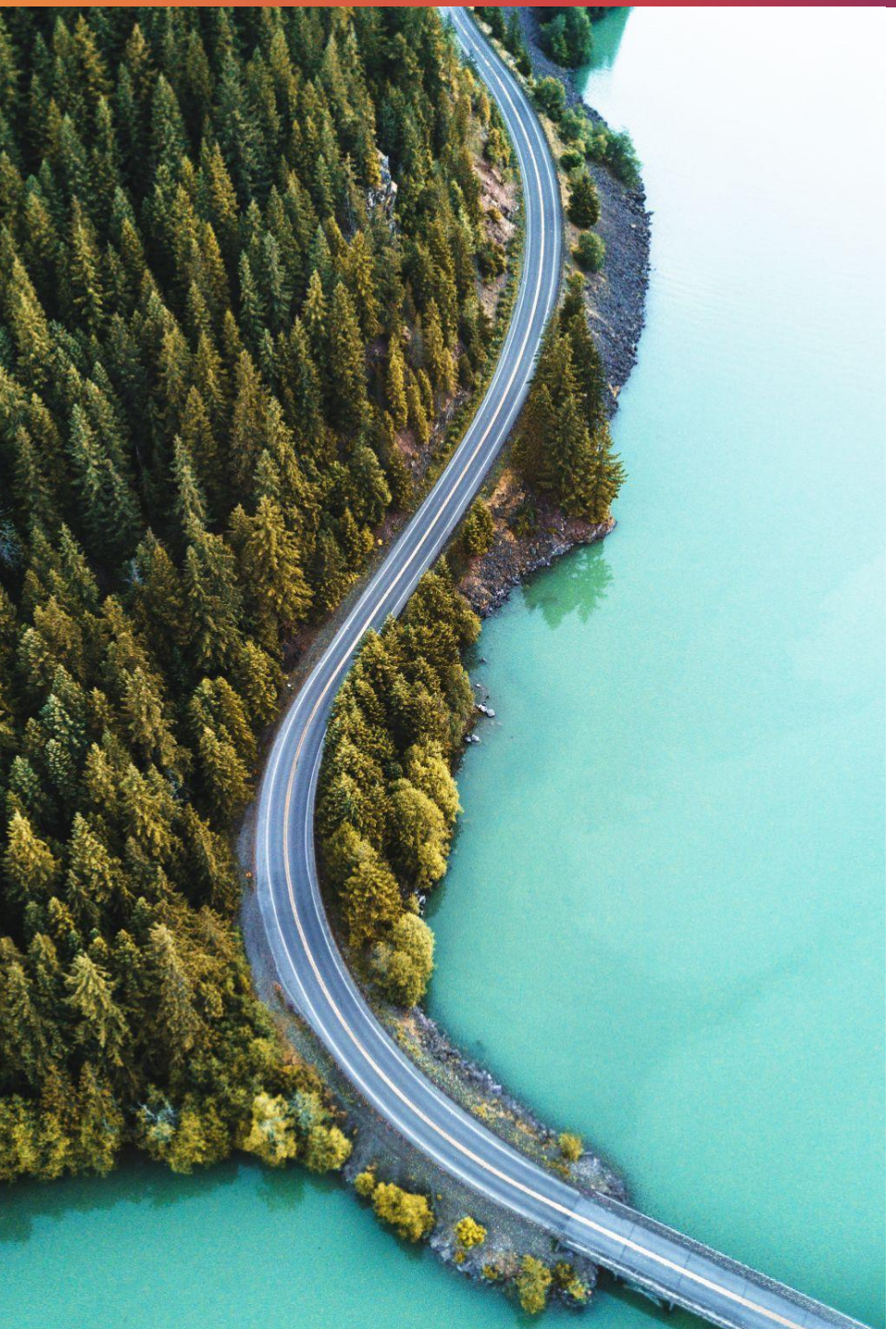
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

CONTENTS

SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

BACKGROUND INFORMATION



SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

ABOUT THE CHEMICALS SECTOR DEVELOPMENT PROJECT

A REFRESHER ON THE CONTENT OF THE CHEMICALS SECTOR GUIDANCE

- The Chemicals Sector Guidance 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 1ST PUBLIC CONSULTATION PROCESS:

- The first round of public consultation was **open for 78 days**, from May 15 until August 1, 2024.
- Feedback was sought primarily through an **open survey** which consisted of 5 informational questions, 21 multiple choice questions on technical content and 2 questions on general feedback. Responders were able to add written comments for all technical survey questions. Feedback was also accepted via direct email.
- The **objective** of the consultation was to gather feedback on the Chemicals Sector Guidance and Chemicals Sector Target-Setting Tool consultation drafts to inform the development of subsequent drafts.

Visit the chemicals sector page to see the public consultation materials:

- Chemicals Sector Guidance Consultation Draft.
- Chemicals Sector Target-Setting Tool Consultation Draft.
- Data Supplement for Reviewers of the Chemicals Sector Guidance Consultation Draft.

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

chemicals@sciencebasedtargets.org

CHEMICALS SECTOR DEVELOPMENT PROCESS

HOW FEEDBACK WILL BE ADDRESSED

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

In this report, the SBTi provides a **summary of the initial responses to the consultation questions**, organized by stakeholder group.

Also included are representative written comments of commonly expressed sentiment from respondents. The SBTi's project team has reviewed the feedback and provided responses to these common themes that include:

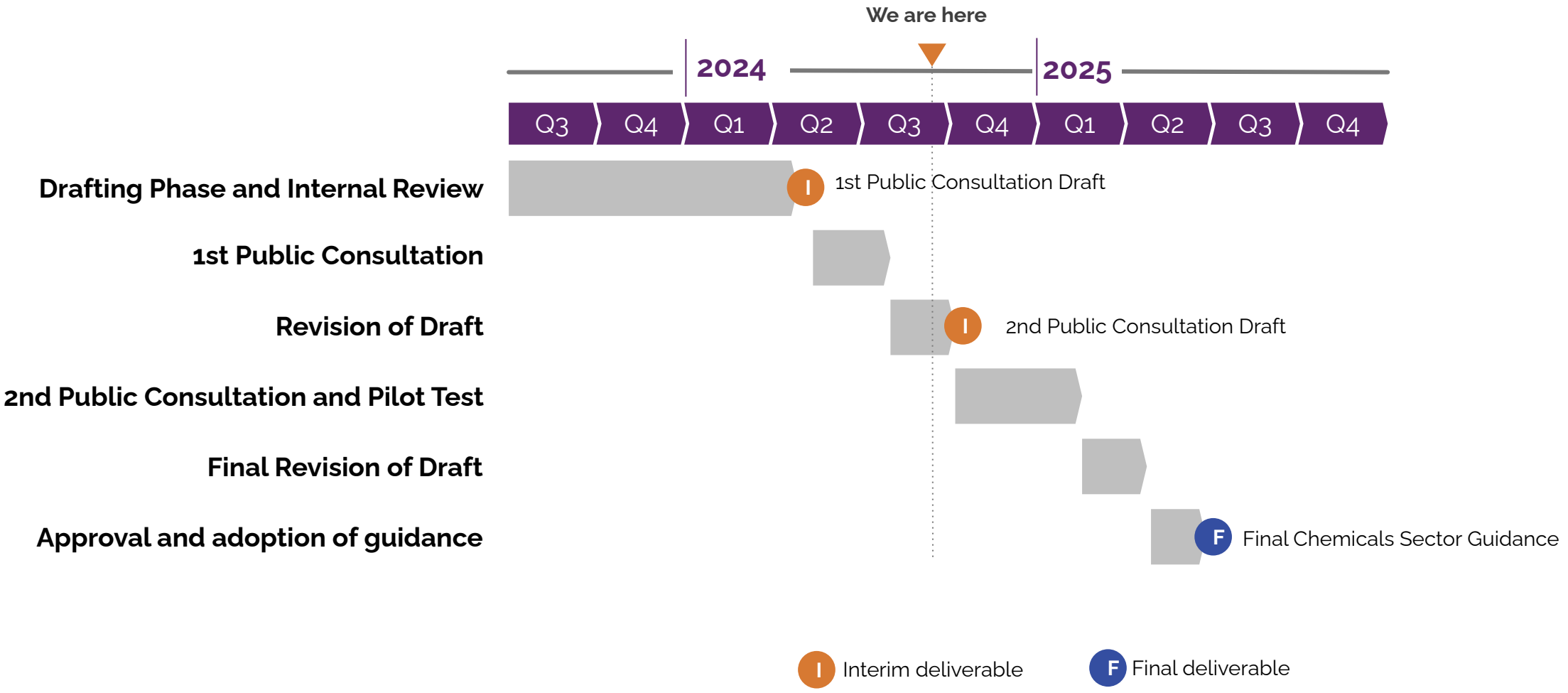
- Where revisions will, or will not be made to the draft resources and the rationale for these decisions.
- Where additional evaluation of feedback is needed.

In cases where additional evaluation is needed, the SBTi project team will consult with internal and external experts, including the project's Expert Advisory Group (EAG) on how to address the feedback. As part of the next public consultation period for the project, **the SBTi will publish a full summary of the revisions made**, how major comments were addressed, and the rationale behind the decisions made.

Revisions to the draft will be made by the SBTi project team and approved by the SBTi's Chief Technical Officer. This revised draft will be published for a **2nd public consultation period of a minimum of 45 days**, expected to be held according to the timeline on the following page.

CHEMICALS SECTOR DEVELOPMENT PROCESS - NEXT STEPS

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION



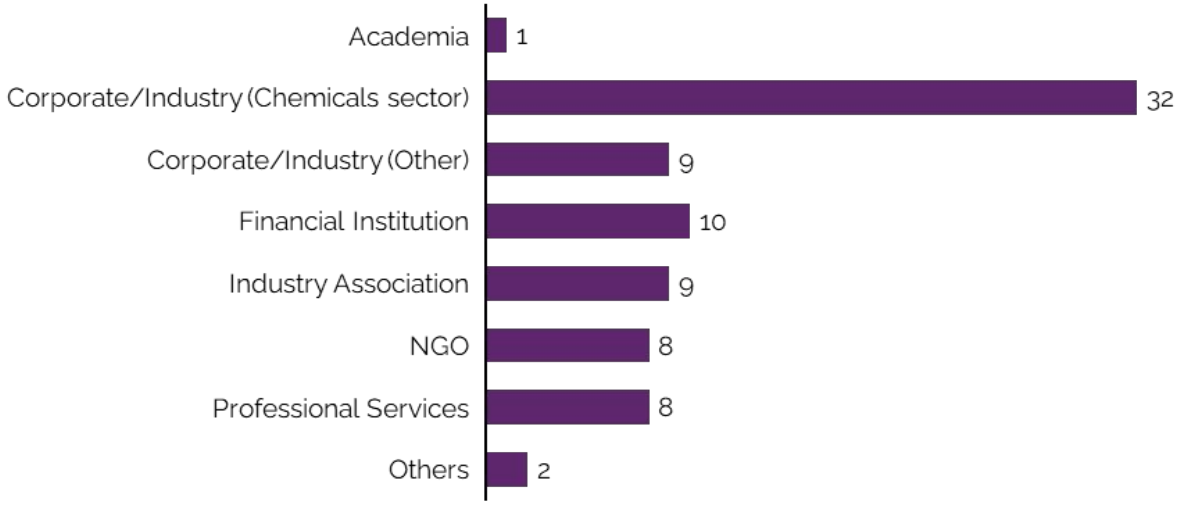
PARTICIPANTS | 79 TOTAL RESPONSES RECEIVED FROM STAKEHOLDERS

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

79
Responses to the survey

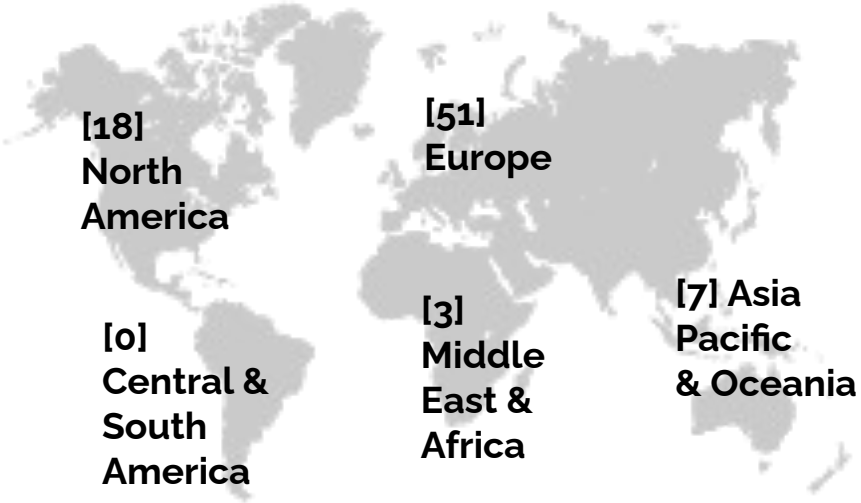
12
Responses through email and one-on-ones

Organizations

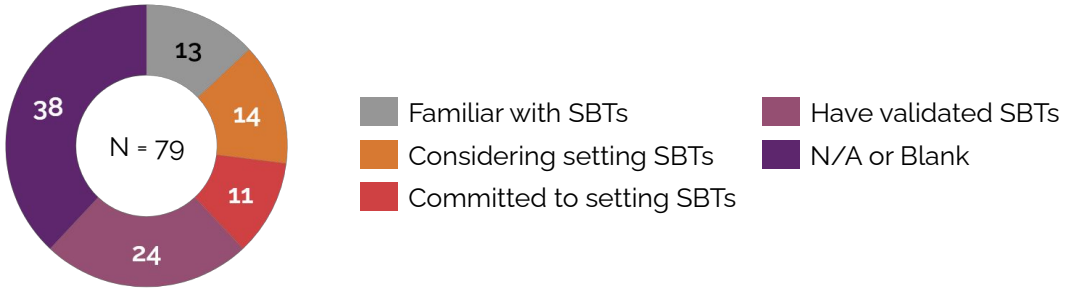


Geographies

21
Countries



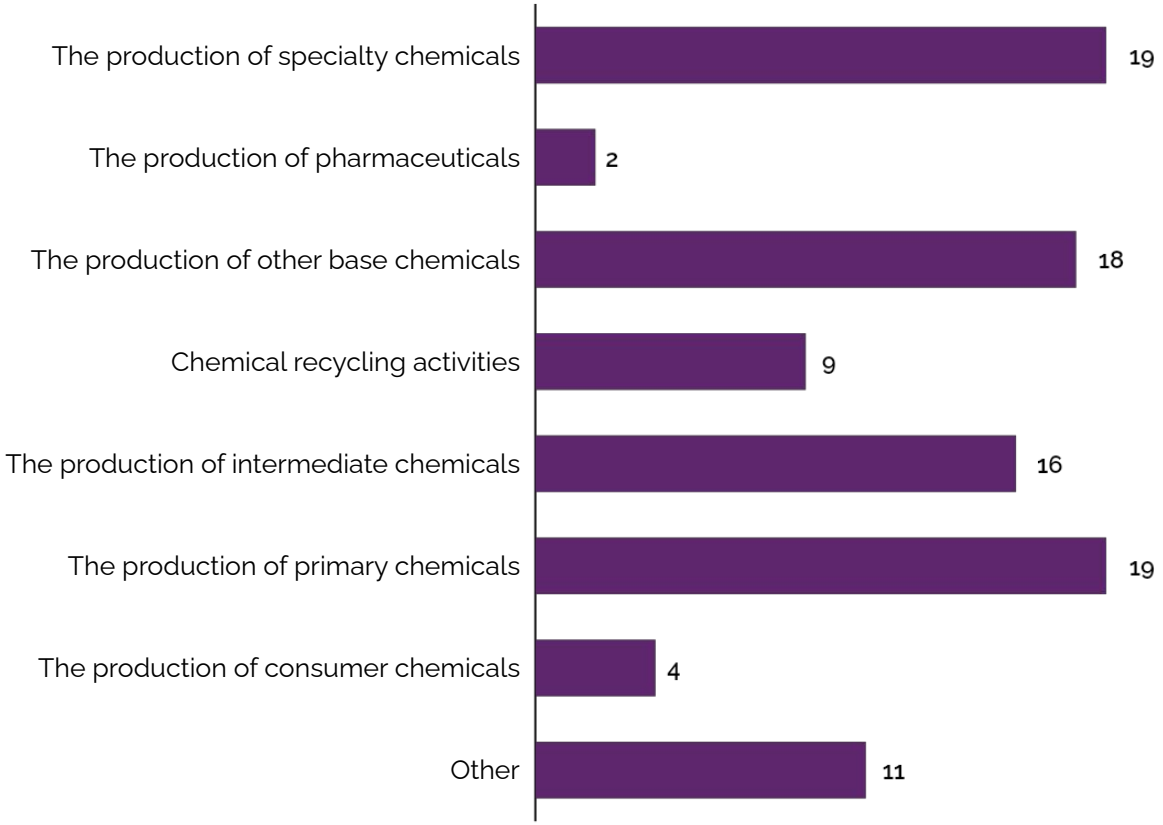
Status with respect to SBTs



PARTICIPANTS | 79 TOTAL RESPONSES RECEIVED FROM STAKEHOLDERS

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Organizations operating in chemicals sector



Note, many respondents chose 2 or more areas they operate in within the chemicals sector, therefore the values shown indicate the sum of all respondents who chose each area.

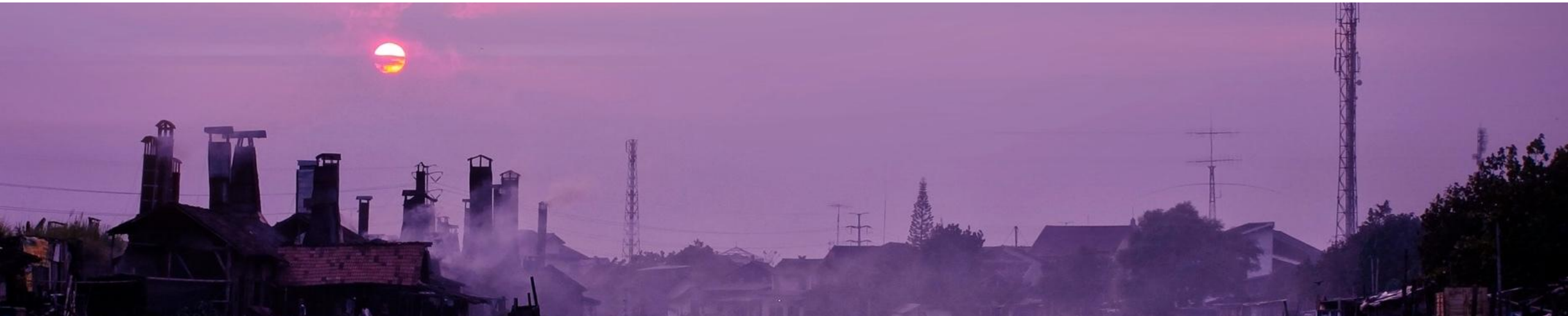
Therefore some organizations may be represented in more than one area, and the total responses is greater than the number of respondents.

PARTICIPANTS | GAPS IN PARTICIPATION

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

- A plurality of respondents were from the industrial sector, however, feedback was received from all relevant stakeholder groups, including NGOs, financial institutions and researchers.
  - Future consultations will actively encourage greater participation from stakeholders beyond the industry.

- No respondents identified as being located in Central and South America.
  - In future consultations and via direct engagement, the SBTi will elicit feedback from stakeholders from these regions.



SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

CONSULTATION FEEDBACK

STRUCTURE OF CHEMICALS SECTOR GUIDANCE CONSULTATION

The Chemicals Sector Guidance consultation was structured around the following key consultation questions

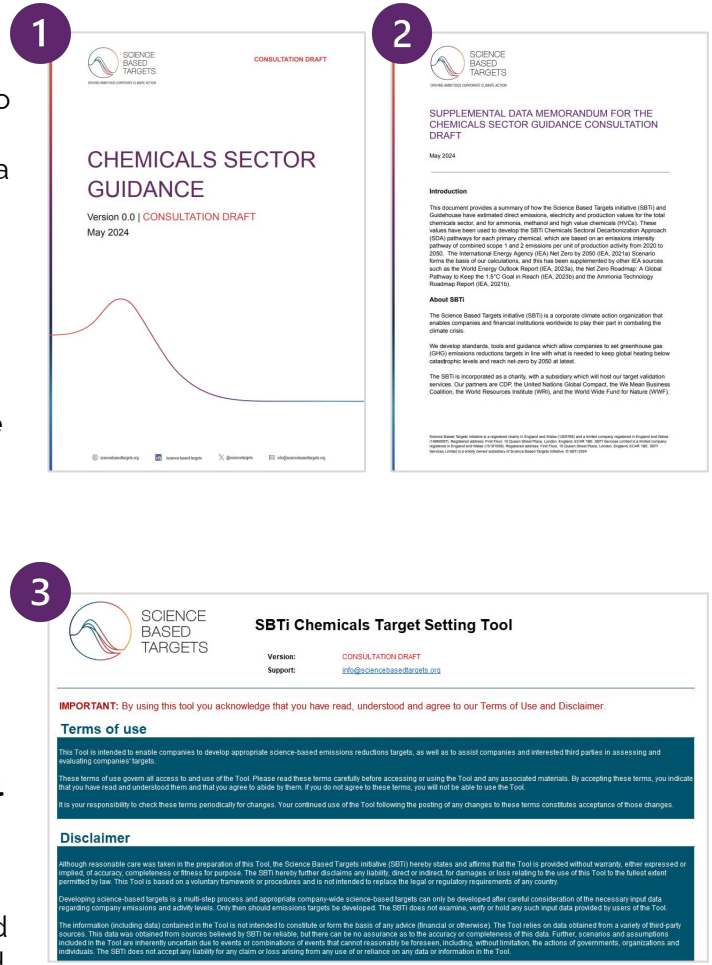
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Documents issued

1. **Chemicals Sector Guidance Consultation Draft**
   The Chemicals Sector Guidance aims to support GHG emissions reduction by providing a sector-specific set of criteria for companies with activities related to the chemicals sector to use to set science-aligned emissions reduction targets.

2. **Supplemental Data Memorandum for the Chemicals Sector Guidance Consultation Draft**
   This document provides a summary of how the SBTi and Guidehouse have estimated direct emissions, electricity and production values for the total chemicals sector, and for ammonia, methanol and high value chemicals (HVCs).

3. **SBTi Chemicals Target-Setting Tool**
   This tool is intended to enable companies to develop appropriate science-based emissions reduction targets, as well as assist companies and interested third parties in assessing and evaluating companies' targets.



Survey questions

1. Contact information
2. Which best describes the **sector you work in**?
3. If you have identified as being part of the chemicals sector, what **areas of the sector does your organization operate in**?
4. What **country is your organization** headquartered in, or if you are responding in a personal capacity please select the country where you are based?
5. What is the **status of your organization with respect to the SBTi**?
6. Do you think that the SBTi's proposed SDA target-setting method for **ammonia production** is appropriate for **setting targets on emissions intensity from this production**? The draft chemicals target-setting tool can be used to understand how emissions intensity targets would be calculated for companies with different baseline emissions intensity values and projected production values.
7. Do you think that the SBTi's proposed SDA target-setting method for **ammonia production** is appropriate for **all non-energy applications for ammonia** (e.g., urea production, ammonium nitrate production, etc.)?
8. Do you think that the SBTi's proposed SDA target-setting method for **methanol production** is appropriate for **setting targets on emissions intensity from this production**? The draft chemicals target-setting tool can be used to understand how emissions intensity targets would be calculated for companies with different baseline emissions intensity values and projected production values.

STRUCTURE OF CHEMICALS SECTOR GUIDANCE CONSULTATION

The Chemicals Sector Guidance consultation was structured around the following key consultation questions

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Additional survey questions

9. Do you think that the SBTi's proposed SDA target-setting method for **HVCs production** is appropriate for **setting targets on emissions intensity from this production**? The draft chemicals target-setting tool can be used to understand how emissions intensity targets would be calculated for companies with different baseline.
10. Do you agree that the SBTi should **require companies to set a separate target on emissions of N2O from nitric acid production**, if they meet the applicability criteria described in the consultation draft?
11. Do you agree with the SBTi's proposed **target threshold of 0.5 kg N2O per tonne of nitric acid produced**?
12. Do you think that the SBTi's **1.5°C-aligned cross-sector absolute emission reduction pathway** is an appropriate level of ambition for **scope 1 and 2 emissions from ALL non-primary chemicals**?
13. Do you agree that the SBTi's **emissions intensity pathway for the power sector** should be used to develop the **electricity-related emissions pathway** in the SDA methods for primary chemicals production?
14. Do you think that the SBTi's **1.5°C-aligned cross-sector absolute emission reduction pathway** is appropriate for **setting targets on emissions from the self-generation of electricity and heat for manufacturing non-primary chemicals**?
15. Do you agree that targets on **scope 3 category 1 emissions from purchased primary chemicals** should be required, regardless of regardless of the contribution of these emissions towards their total scope 1, 2, and 3 inventory?
16. Do you agree that targets on **scope 3 category 11 CO2 emissions from sold urea-based fertilizers** should be required, regardless of regardless of the contribution of these emissions towards their total scope 1, 2, and 3 inventory?
17. Do you agree that **absolute emissions reduction** is an appropriate metric for setting targets on **N2O emissions from the use of nitrogen fertilizers**?
18. Do you think that the proposed **near-term absolute emissions reduction pathways** presented in criteria CHEM-C8 of the consultation draft is an appropriate level of ambition for **N2O emissions from the use of sold nitrogen fertilizers in scope 3 category 11**?
19. Do you think that the proposed **long-term absolute emissions reduction pathways** presented in criteria CHEM-C9 of the consultation draft is an appropriate level of ambition for **N2O emissions from the use of sold nitrogen fertilizers in scope 3 category 11**?
20. Do you agree that **a target requiring a minimum percentage of carbon-based alternative feedstocks** is an appropriate metric for increasing the usage of these materials in the chemicals value chain, and **thus increasing circularity** and **reducing the reliance on virgin fossil-based materials**?
21. Do you agree that the **target on share of alternative materials** should be set based on a **company's sourced feedstock**, or should the target be based on a **company's sold product** considering data availability for such metrics?
22. Should this target be **mandatory** or **optional** for companies that source **carbon-based raw materials**?
23. Do you agree with the **proposed minimum thresholds of sourced alternative feedstocks** that are presented in the draft chemicals sector target-setting tool?
24. Do you agree that the draft guidance **incentivizes all relevant emissions mitigations and/or abatement measures** for the chemicals sector's net-zero transition on a 1.5°C-aligned pace?
25. Does the draft guidance **incentivize any actions that may be incompatible** with the chemicals sector's net-zero transition on a 1.5°C-aligned pace?
26. Do you have any comments on the following aspects of the tool (you may select more than one). Please note that this question is about the function of the tool itself. Please address any comments regarding the underlying pathway or method data in the questions above.

SUMMARY OF CONSULTATION FEEDBACK

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

This feedback summary report is organized according to the consultation questions summarized on the preceding slides. For each consultation question the following information is included:

- A summary of the responses to each multiple choice consultation question.
- A summary of representative written comments received via the consultation survey. For each comment, the SBTi has indicated:
  - Where revisions will (or will not) be made to address the feedback in the next draft, or
  - Where additional evaluation is needed to determine whether revisions will be made.

As part of the next consultation period, the SBTi will publish a summary describing how we have addressed the feedback into the revised draft, including detailed rationale for our decisions.

Note that this report outlines the main themes of the written feedback, with a focus on common topics that were submitted by multiple responders. This report includes text taken from written comment(s), however these comments may have been slightly edited for clarity or to emphasize key points.

Due to the large number of comments received, this report does not include every individual comment. The SBTi has published a complete feedback log that includes the full list of received comments.

All feedback, including answers to multiple choice questions and written comments, have been anonymized.

[Q6] - DETAILED SURVEY RESPONSES

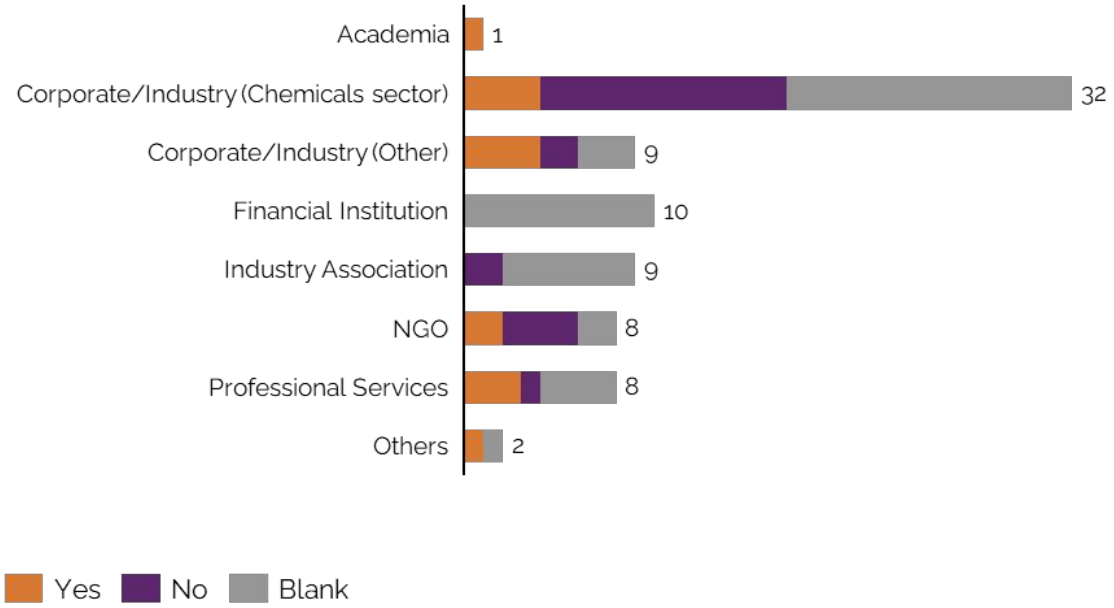
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Feedback received

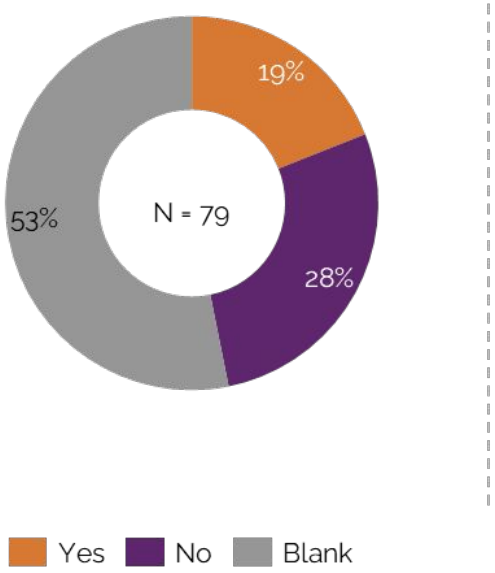
There was not a clear preference amongst stakeholders that responded to this question. Responders from the chemicals industry were more likely to answer "No". Please see the SBTi's responses to written comments on this question below.

Q6. Do you think that the SBTi's proposed SDA target-setting method for ammonia production is appropriate for setting targets on emissions intensity from this production? The draft chemicals target-setting tool can be used to understand how emissions intensity targets would be calculated for companies with different baseline emissions intensity values and projected production values.

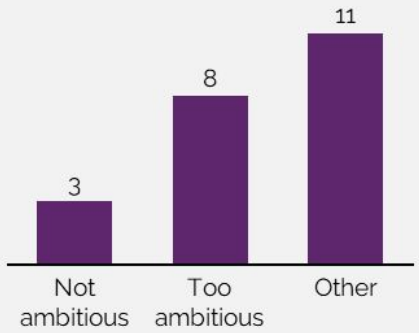
Count of responses



Percentage split of responses



Percentage split of "No" responses



Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

[Q8] - DETAILED SURVEY RESPONSES

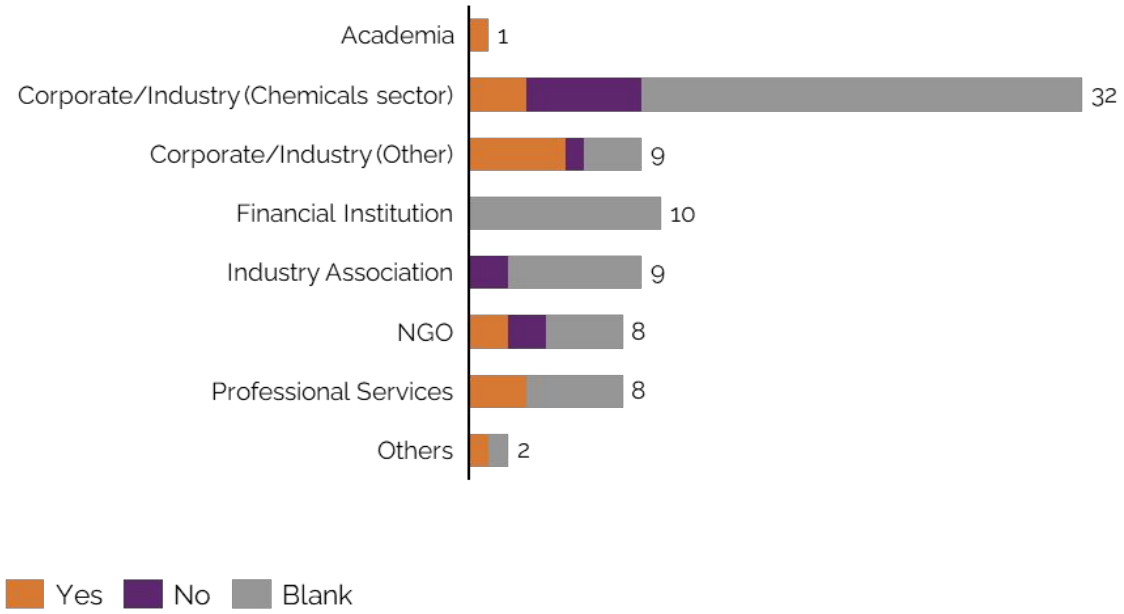
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Feedback received

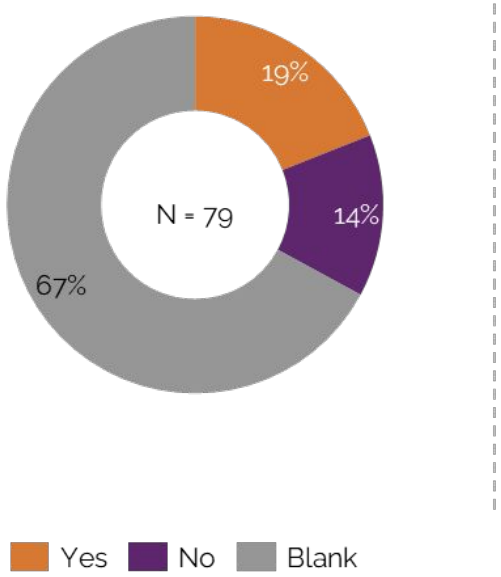
There was not a clear preference amongst stakeholders that responded to this question. Responders from the chemicals industry were more likely to answer "No". Please see the SBTi's responses to written comments on this question below.

Q8. Do you think that the SBTi's proposed SDA target-setting method for methanol production is appropriate for setting targets on emissions intensity from this production? The draft chemicals target-setting tool can be used to understand how emissions intensity targets would be calculated for companies with different baseline emissions intensity values and projected production values.

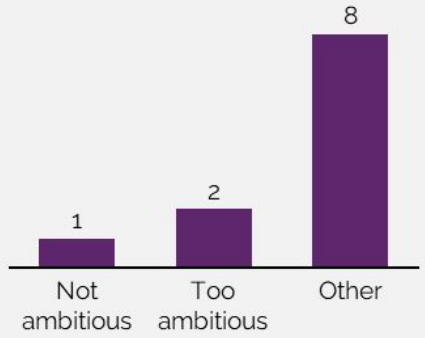
Count of responses



Percentage split of responses



Percentage split of "No" responses



Note, 1 respondent who voted "yes" noted that they thought the proposed target was not ambitious enough.

Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

[Q9] - DETAILED SURVEY RESPONSES

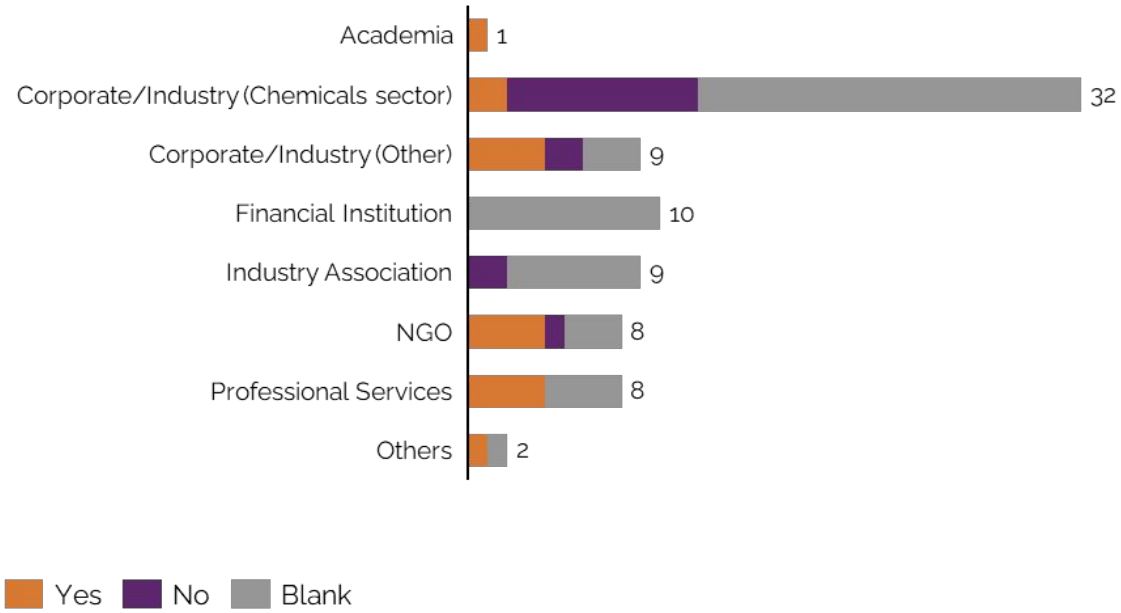
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Feedback received

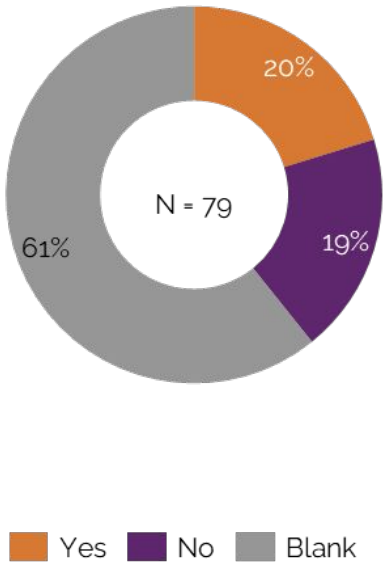
There was not a clear preference amongst stakeholders that responded to this question. Responders from the chemicals industry were more likely to answer "No". Please see the SBTi's responses to written comments on this question below.

Q9. Do you think that the SBTi's proposed SDA target-setting method for HVCs production is appropriate for setting targets on emissions intensity from this production? The draft chemicals target-setting tool can be used to understand how emissions intensity targets would be calculated for companies with different baseline emissions intensity values and projected production values.

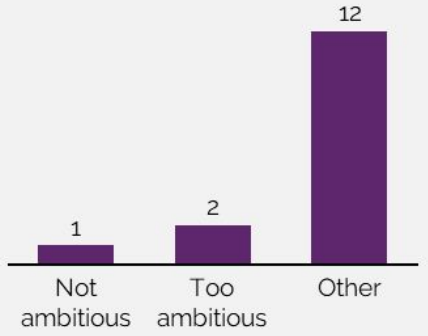
Count of responses



Percentage split of responses



Percentage split of "No" responses



Note, 1 respondents who voted "yes" noted that they thought the proposed target was too ambitious.

Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Questions 6, 8, and 9 (Combined for this Summary)

Do you think that the SBTi's proposed SDA target-setting method for **ammonia / methanol / HVC production** are appropriate for **setting targets on emissions intensity from this production**?

Stakeholder feedback	How this feedback will be addressed
The assumed speed of development of lower-carbon production technologies, including the availability of renewable power and/or alternative feedstocks for primary chemicals is too high in the proposed SDA pathways.	● The SBTi recognizes that significant changes are needed in the technologies currently used to produce primary chemicals, as well as in the supporting infrastructure needed for these technologies, such as the availability of consistent renewable electricity. However, the SBTi bases its target-setting methods on emissions scenarios that aligned with a 1.5˚C level of ambition. For sector-specific methods this includes an assumed carbon budget for the boundary of emissions sources included in the methods' boundaries. We have based the SDA target-setting pathways for each primary chemical on the International Energy Agency's (IEA's) Net Zero Emissions by 2050 Scenario*, as outlined in Annex 3 of the Chemicals Sector Guidance Consultation Draft and the Supplemental Data Memo for the Chemicals Sector Guidance Consultation Draft. This emissions scenario is part of a technology-rich model that includes an evaluation of technological readiness for new production routes while ensuring the assumed carbon budget is maintained.

**IEA. (2021). Net Zero by 2050: A Roadmap for the Global Energy Sector. License: CC BY 4.0. IEA, Paris. Retrieved from https://www.iea.org/reports/net-zero-by-2050*

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Questions 6, 8, and 9 (Combined for this Summary)

Do you think that the SBTi's proposed SDA target-setting method for **ammonia / methanol / HVC production** are appropriate for **setting targets on emissions intensity from this production**?

Stakeholder feedback	How this feedback will be addressed
Emissions of CO_2 that occur in the use-phase of urea-based fertilizers should be accounted as scope 1 emissions for the producer of the urea, and therefore included in the scope 1 and 2 target-setting methods of ammonia/urea production.	The SBTi recognizes that CO_2 emissions that occur in the use-phase of urea-based fertilizers cannot be abated at the time of emission in the field. This implies any abatement of such emissions would need to occur during the manufacture of the urea itself. Accounting for CO_2 from the use-phase of urea-based fertilizers in scope 1 would necessitate a significant change to the GHG accounting requirements of the GHG Protocol, which requires that emissions associated with sold products that occur in a company's value chain outside their operational boundary, must be accounted for in scope 3. The SBTi is maintaining consistency with the GHG Protocol that CO_2 emissions occurring in the use-phase from urea-based fertilizers should be accounted for in scope 3 category 11. Such accounting recognizes the importance of full value-chain emissions accountability. This situation is not wholly unique in industry. For example, sellers of certain transport fuels must account for use-phase emissions that cannot be abated at the point of use. Similarly, sellers of carbonated beverages must account for the ultimate unabatable emissions of the CO_2 that has been incorporated into their product. Maintaining consistency with the GHG Protocol would also avoid a situation in which companies must utilize different accounting methods for different purposes. Further, there are actions that producers of urea can take to mitigate the emissions from the release of CO_2 in the use-phase. These include the use of bio-based feedstocks to produce the ammonia and urea, or the use of green-hydrogen based ammonia combined with CO_2 of a biogenic origin or from direct air capture (DAC).

Adapted in line with feedback / no response needed *Partly adapted in line with feedback* *For further consultation / feedback dismissed* *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Questions 6, 8, and 9 (Combined for this Summary)

Do you think that the SBTi's proposed SDA target-setting method for **ammonia / methanol / HVC production** are appropriate for **setting targets on emissions intensity from this production**?

Stakeholder feedback	How this feedback will be addressed
The proposed SDA pathways do not consider regional differences that may present unique challenges due to the responsibilities and capabilities of different regions to provide supporting infrastructure or renewable power.	● The SBTi recognizes that every geographic region has unique challenges, and opportunities, when it comes to the ability to align with emissions scenarios that are aggregated at the global level. While this is true for the chemicals sector as well, for the initial version of the Chemicals Sector Guidance, the SBTi has chosen to develop sector-specific pathways at the global level. More research may be done for future revisions of the guidance, to assess whether regional pathways or methods may be feasible. Such research will include an evaluation of the availability of data on which to base the pathways, as well as an assessment of whether regional pathways would present a fair and practical delineation in targets for companies that may be based in one region, but have operations in multiple regions.
The current emissions intensity value for ammonia production (2.6 kgCO2e/kg ammonia) may be high as a baseline. IEA's global average value is categorized by steam methane reforming, coal, and oil, each employing a single emissions factor. However, in practice, there are a number of different processes within each of these three routes.	● As noted by the commenter, the SBTi has based our SDA target-setting pathways for primary chemicals on data from the IEA's NZE Scenario. We have noted the commenter's concern that the baseline emissions intensity value for ammonia in the pathway may be too high. The SBTi will periodically assess the need for revisions to its target-setting pathways to ensure they reflect the most up-to-date data. It should be noted that the SDA target-setting method uses both the product pathway and the company's base year emissions intensity to calculate company-specific targets. Therefore, the intensity values of the product pathway is just one variable in the calculation of the near-term target.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Questions 6, 8, and 9 (Combined for this Summary)

Do you think that the SBTi's proposed SDA target-setting method for **ammonia / methanol / HVC production** are appropriate for **setting targets on emissions intensity from this production**?

Stakeholder feedback	How this feedback will be addressed
SDA pathway for ammonia, methanol and HVCs should be developed based on a cradle-to-gate (C2G) approach, whereby scope 1, scope 2, and upstream scope 3 categories (purchased feedstock and raw material) emissions are integrated into an absolute reduction target. A cradle-to-gate approach for reduction pathways for base chemicals (ammonia, methanol, HVCs and hydrogen) maximizes target comparability and consistency across the industry and guarantees the necessary flexibility for companies to deliver on their targets.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.
The SBTi's proposed SDA target-setting method for ammonia production is appropriate for setting targets on emissions intensity. This method is scientifically grounded, aligns with industry standards, and specifically targets emissions during the production phase of ammonia, ensuring relevance and accuracy.	● The SBTi received comments, such as this example, that were supportive of the current SDA target-setting pathways for primary chemicals.

● *Adapted in line with feedback* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

[Q7] - DETAILED SURVEY RESPONSES

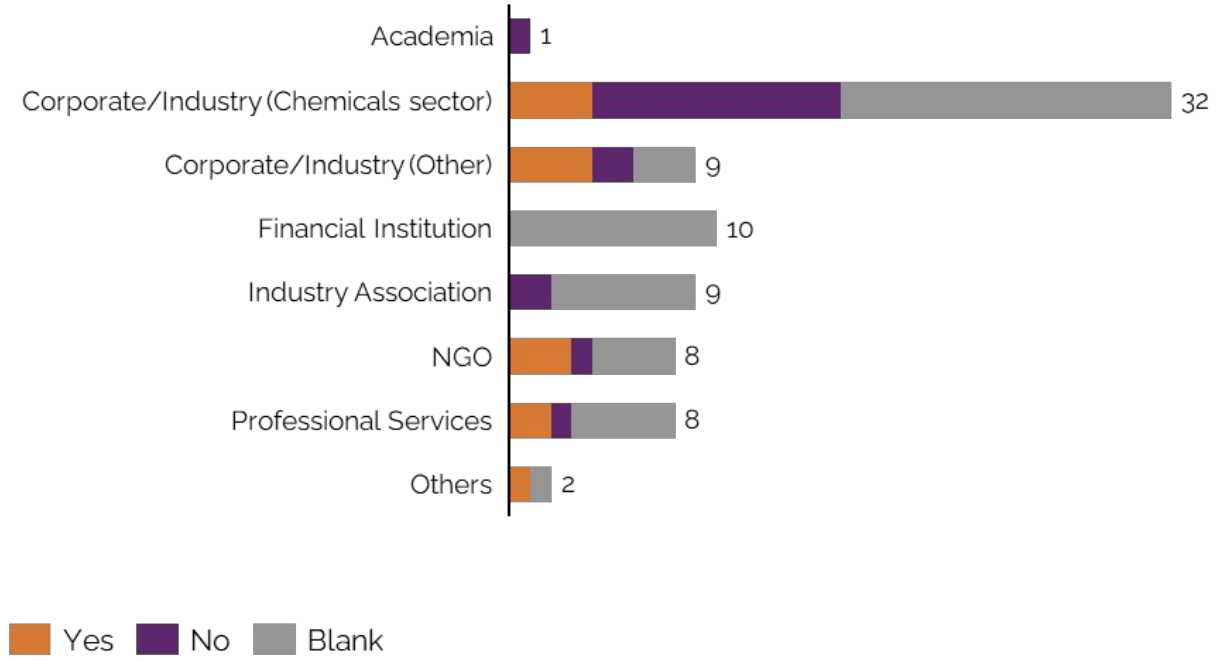
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Feedback received

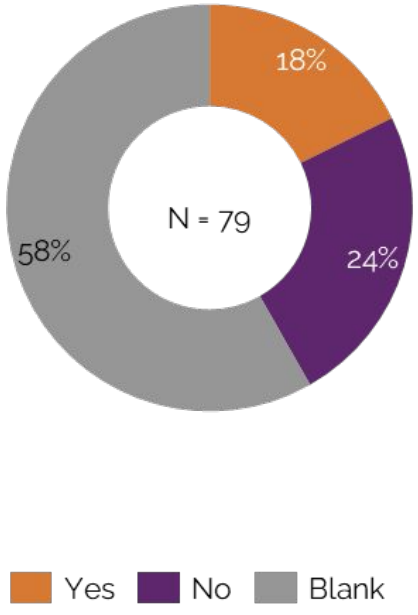
There was not a clear preference amongst stakeholders that responded to this question. Responders from the chemicals industry were more likely to answer "No". Please see the SBTi's responses to written comments on this question below.

Q7. Do you think that the SBTi's proposed SDA target-setting method for ammonia production is appropriate for all non-energy applications for ammonia (e.g., urea production, ammonium nitrate production, etc.)?

Count of responses



Percentage split of responses



Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 7

Do you think that the SBTi's proposed SDA target-setting method for **ammonia production** is appropriate for all **non-energy applications for ammonia** (e.g., urea production, ammonium nitrate production, etc.)?

Stakeholder feedback	How this feedback will be addressed
Ammonia used for energy purposes should be included in the SDA pathway for ammonia production.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

[Q10] - DETAILED SURVEY RESPONSES

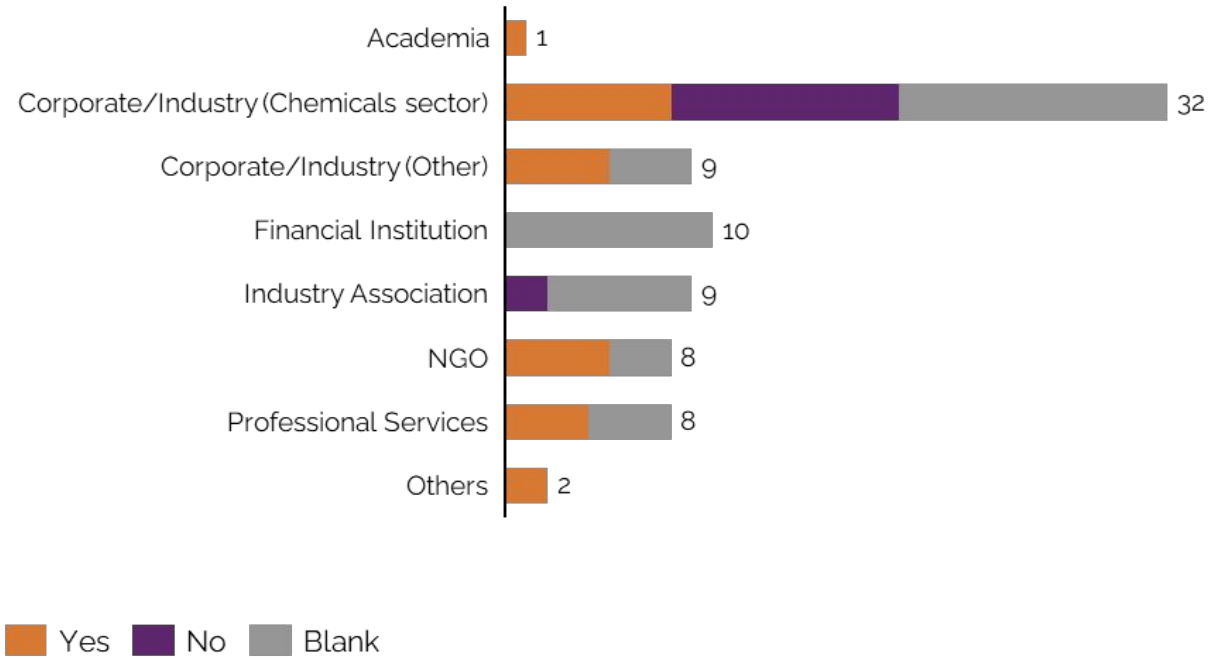
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Feedback received

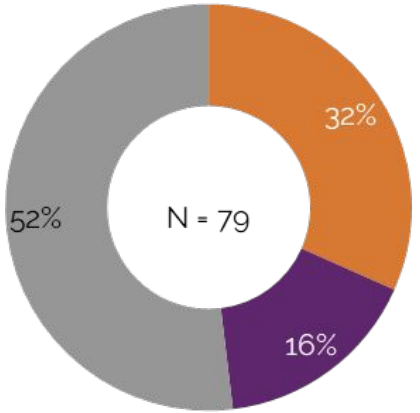
A majority of stakeholders that answered this question supported a separate target on N2O emissions from nitric acid production. Responders from the chemicals industry were more likely to not support the target. Please see the SBTi's responses to written comments on this question below.

Q10. Do you agree that the SBTi should require companies to set a separate target on emissions of N2O from nitric acid production, if they meet the applicability criteria described in the consultation draft?

Count of responses



Percentage split of responses



Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

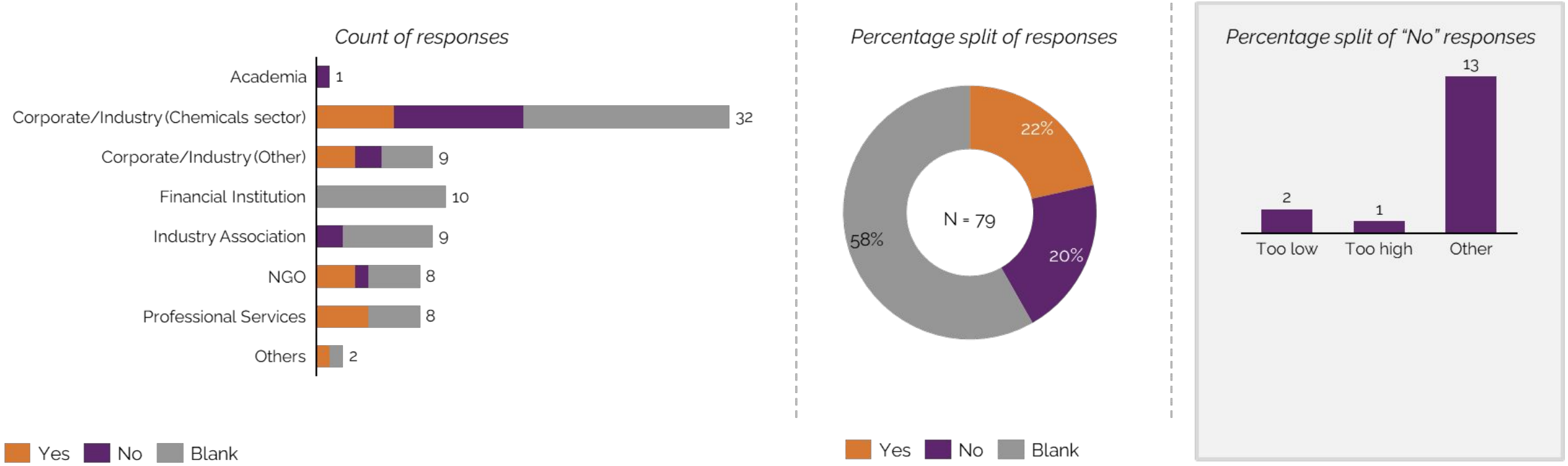
[Q11] - DETAILED SURVEY RESPONSES

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Feedback received

There was not a clear preference amongst stakeholders that responded to this question. Responders from the chemicals industry were more likely to answer "No". Please see the SBTi's responses to written comments on this question below.

Q11. Do you agree with the SBTi's proposed target threshold of 0.5 kg N2O per tonne of nitric acid produced?



Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 10, 11

- Do you agree that the SBTi should **require companies to set a separate target on emissions of N2O from nitric acid production**, if they meet the applicability criteria described in the consultation draft?
- Do you agree with the SBTi's proposed **target threshold of 0.5 kg N2O per tonne of nitric acid produced**?

Stakeholder feedback	How this feedback will be addressed
• Mandatory nitric acid production emissions targets: Additional requirement to set emissions target on N2O emissions associated with nitric acid production goes above and beyond what is required compared to other sectors outside chemicals. • A separate target for nitric acid for chemical producers who also produce other chemicals, such as ammonia, where nitric acid and ammonia are used in the production of other products, such as ammonium nitrate or urea ammonium nitrate should be avoided. These separate target requirements prescribe the means by which companies decarbonize, rather than allowing companies to identify and pursue the optimal solutions for their own circumstances. In the extreme, it could leave companies unable to follow this SDA if the combination of targets required is unachievable (technically and economically).	● The SBTi develops sector specific target-setting methods to address both the unique challenges and opportunities to reduce emissions within the sector. The SBTi feels that specific targets on the production of nitric acid present a low risk, high reward opportunity to incentivize emissions reductions on this abatible source of N2O emissions. By not requiring individual targets on nitric acid production, companies with unabated N2O emissions may first address these emissions to meet their broader target, and thus be less incentivized to pursue other meaningful actions in the short term.
Agree with a nitric acid separate target; but with it should be absolute emissions reductions (rather than intensity) based.	● The SBTi has developed the target-setting method for nitric acid based on a generally established benchmark for the best available abatement technology for N2O emissions from this process. The method requires companies to reach this benchmark on a company-wide average basis. Thus, each company's individual starting point may be different compared to the benchmark value. Companies that have already achieved the benchmark are not expected to set specific targets on this metric. For this reason, a common absolute emission reduction pathway for all companies is not feasible.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 10, 11

- Do you agree that the SBTi should **require companies to set a separate target on emissions of N2O from nitric acid production**, if they meet the applicability criteria described in the consultation draft?
- Do you agree with the SBTi's proposed **target threshold of 0.5 kg N2O per tonne of nitric acid produced**?

Stakeholder feedback	How this feedback will be addressed
• 0.5 kg N2O per tonne of nitric acid produced would be a good starting point of the target. • 0.57 kg N2O per tonne of nitric acid has been fixed as the benchmark up to 2030 in EU ETS. • Furthermore, the proposed threshold of 0.5 kg N2O per tonne of nitric acid produced may not fully leverage the capabilities of existing advanced abatement technologies. A more ambitious threshold could be around 0.3 kg N2O per tonne, which is supported by studies indicating the effectiveness of selective catalytic reduction (SCR) and non-selective catalytic reduction (NSCR) technologies.	● There was not a clear consensus in the consultation feedback regarding the proposed benchmark value for N2O emissions intensity from nitric acid production. Commenters provided feedback indicating support of the current value, as well as recommendations for less and more ambitious values. Therefore the SBTi will maintain the current value in the draft of 0.5 kg N_2O for the initial version of the Chemicals Sector Guidance. The SBTi will periodically review the Chemicals Sector Guidance to determine if revisions are needed, including whether the benchmark value provided for this target-setting method warrants a revision.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

[Q12] - DETAILED SURVEY RESPONSES

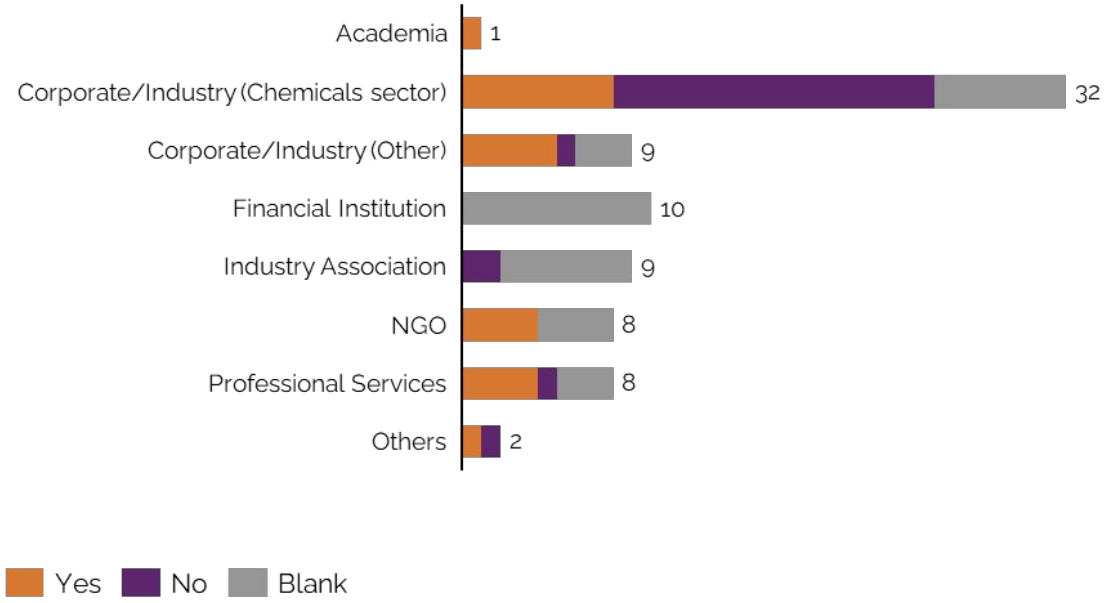
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Feedback received

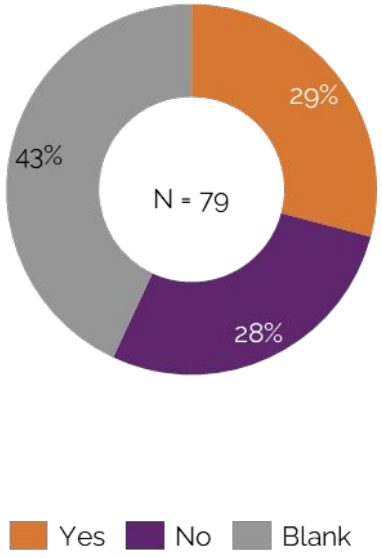
There was not a clear preference amongst stakeholders that responded to this question. Responders from the chemicals industry were more likely to answer "No". Please see the SBTi's responses to written comments on this question below.

Q12. Do you think that the SBTi's 1.5˚C-aligned cross-sector absolute emission reduction pathway is an appropriate level of ambition for scope 1 and 2 emissions from ALL non-primary chemicals?

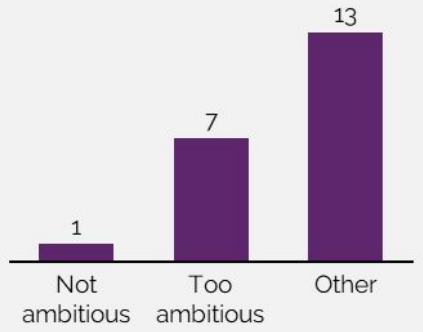
Count of responses



Percentage split of responses



Percentage split of "No" responses



One responder selected "No" but did not respond to this follow-up question on why the pathway is inappropriate.

Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 12

Do you think that the SBTi's **1.5°C-aligned cross-sector absolute emission reduction pathway** is an appropriate level of ambition for **scope 1 and 2 emissions from ALL non-primary chemicals**?

Stakeholder feedback	How this feedback will be addressed
• The cross-sector absolute emission reduction pathway may not adequately address the specific emissions profiles and reduction challenges unique to various non-primary chemical productions. A more tailored approach that considers the diverse processes and emissions sources within non-primary chemical production would likely be more effective in achieving meaningful emissions reductions, particularly those involving hard-to-abate emissions. • GHG emissions of the "Other chemicals" are material enough - both in volume and number of companies involved - to justify a sector-specific method to set reduction targets. • The commenter also suggests that the SBTi consider establishing target formats that follows the International Energy Agency (IEA) net-zero pathway. SBTi's current divergence from IEA's guidance for "other chemicals" will complicate the adoption of the guidance because the proposed default cross-sectoral ACA of SBTi's Corporate Net-Zero Standard of 4.2% per year is impractical and infeasible for the commenter and other 'hard-to-abate' industries in the chemicals subsector. Applying this corporate default value, rather than the IEA net-zero projections artificially reduces the chemicals sector's carbon budget.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 12

Do you think that the SBTi's **1.5°C-aligned cross-sector absolute emission reduction pathway** is an appropriate level of ambition for **scope 1 and 2 emissions from ALL non-primary chemicals**?

Stakeholder feedback	How this feedback will be addressed
• To drive action, it is more favorable to default to a more ambitious target. The SBTi's 1.5°C-aligned cross-sector absolute emission reduction pathway, generally being more ambitious than sector-specific pathways, is an appropriate level of ambition for scope 1 and 2 emissions until a more sector-specific pathway can be set for non-primary chemicals, with support of credible data. • The commenter follows the cross-sector absolute methodology. This methodology was used to validate our targets by SBTi in March 2023. We do not need a sector-specific ACA.	● The SBTi received several comments, such as these examples, in support of using the SBTi's 1.5°C-aligned cross-sector absolute emission reduction pathway for scope 1 and 2 emissions from ALL non-primary chemicals.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

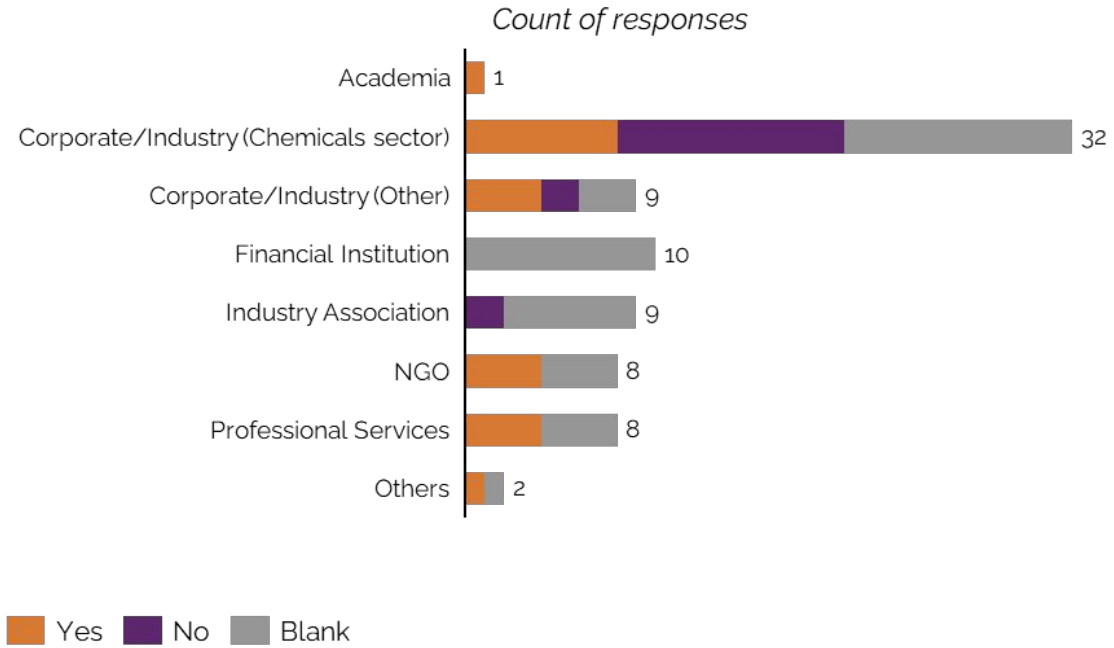
[Q13] - DETAILED SURVEY RESPONSES

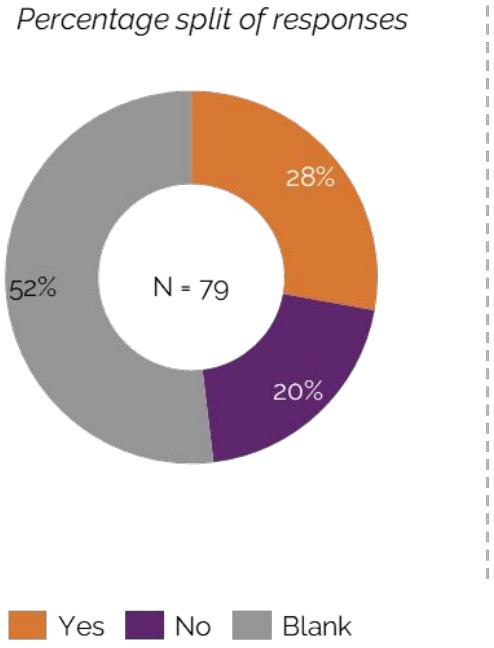
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

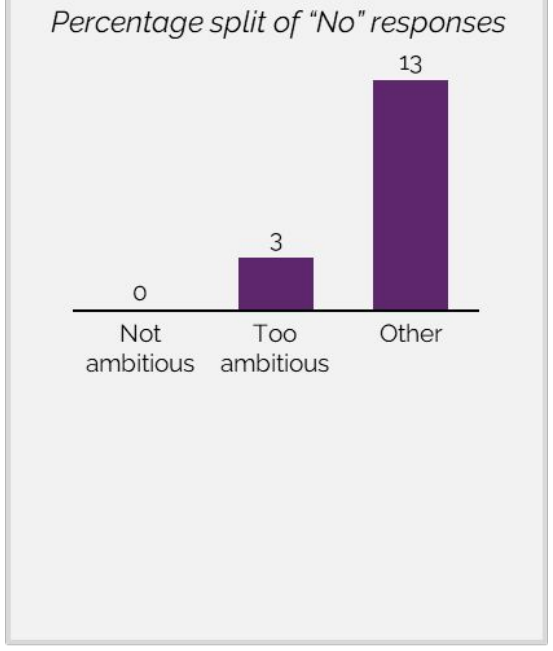
Feedback received

There was not a clear preference amongst stakeholders that responded to this question. Responders from the chemicals industry were more likely to answer "No". Please see the SBTi's responses to written comments on this question below.

Q13. Do you agree that the SBTi's emissions intensity pathway for the power sector should be used to develop the electricity-related emissions pathway in the SDA methods for primary chemicals production?







Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 13

Do you agree that the SBTi's **emissions intensity pathway for the power sector** should be used to develop the **electricity-related emissions pathway** in the SDA methods for primary chemicals production?

Stakeholder feedback	How this feedback will be addressed
Without a sector-specific approach that recognizes the unique considerations for power in the chemicals sector, many chemicals companies will be unable to adopt the SDA method for primary chemicals production. A 7.6% intensity reduction for power used in the chemicals sector does not reflect the industry's reality. As the chemicals sector requires reliable dispatchable baseload power, the potential and cost for on-site renewables is limited, due to the need for back-up generation capacity, as well as power storage. Hence decarbonization of self-generated power is more complex than decarbonization of national grids. SBTi should develop a differentiated baseload power pathway for the chemicals sector (2.8% linear annual reduction rate (2020-2030) based on IEA NZE data). The SBTi should also clarify how it will treat power that is purchased directly from third party owned facility falling within the chemicals sector boundaries.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 13

Do you agree that the SBTi's **emissions intensity pathway for the power sector** should be used to develop the **electricity-related emissions pathway** in the SDA methods for primary chemicals production?

Stakeholder feedback	How this feedback will be addressed
The proposed methods do not consider regional differences that may present unique challenges due to the responsibilities and capabilities of different regions to provide supporting infrastructure or renewable power.	● The SBTi recognizes that every geographic region has unique challenges, and sometimes opportunities, when it comes to the ability to align with emissions scenarios and integrated assessment models that are aggregated at the global level. While this is true for the chemicals sector as well, for the initial version of the Chemicals Sector Guidance, the SBTi has chosen to develop sector-specific pathways at the global level. More research may be done for future revisions of the guidance to assess whether regional pathways or methods may be feasible. Such research will include an evaluation of the availability of data on which to base the pathways, as well as an assessment of whether regional pathways would present a fair and practical delineation in targets for companies that may be based in one region but have operations in multiple regions.
The sectoral guidance should acknowledge the specificities of the power generation and use in the chemicals industry. For situations where electricity is self-generated to produce base chemicals, we therefore recommend to use the same abatement rate as for scope 1 emissions under the base chemical SDA. This approach recognizes that the rate of emission abatement is dependent on the primary process, rather than the electricity generating process, especially where it is made from waste heat and steam. For the power purchased from the grid, the IEA based power pathway should be followed.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

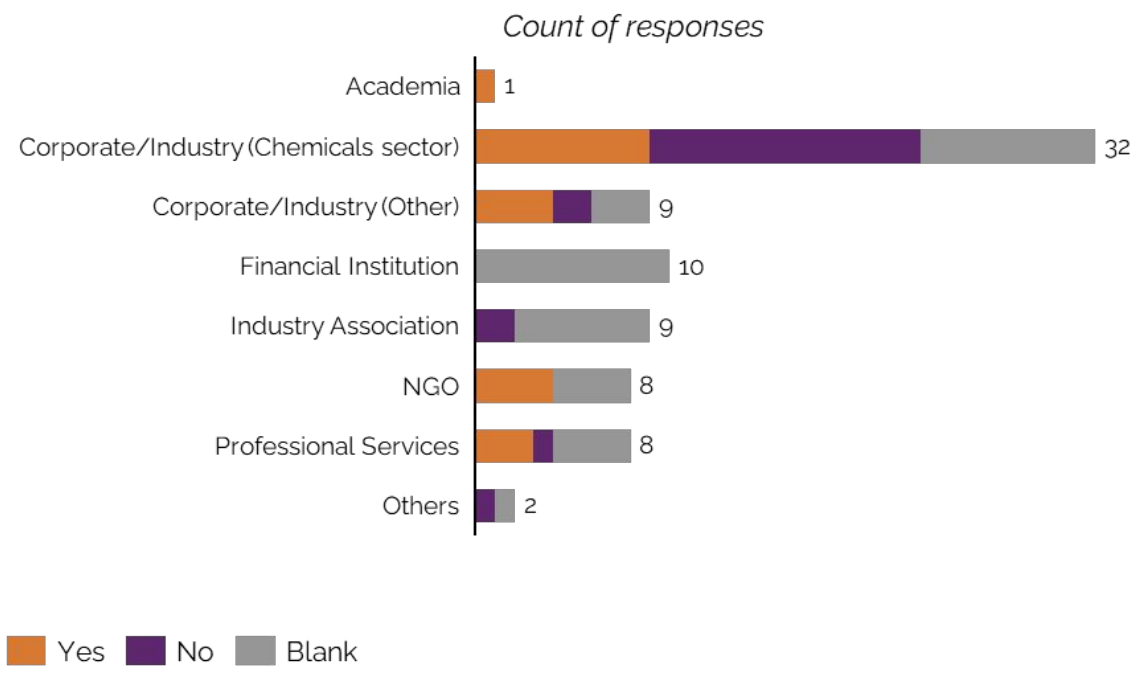
[Q14] - DETAILED SURVEY RESPONSES

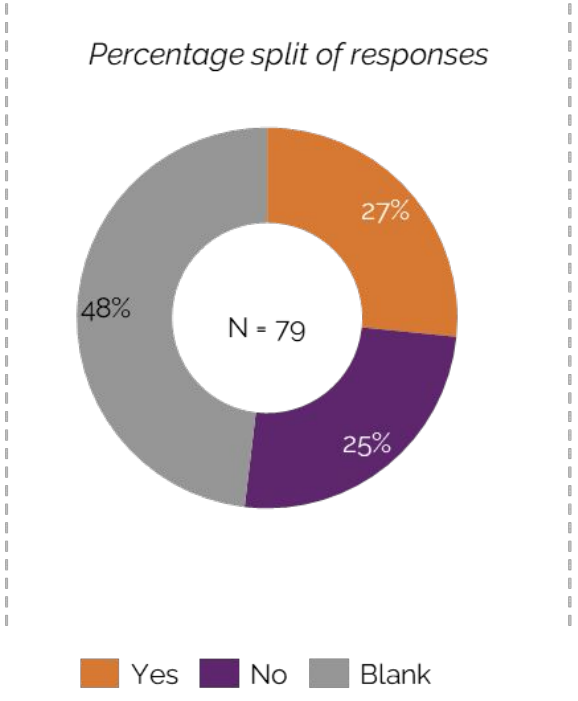
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

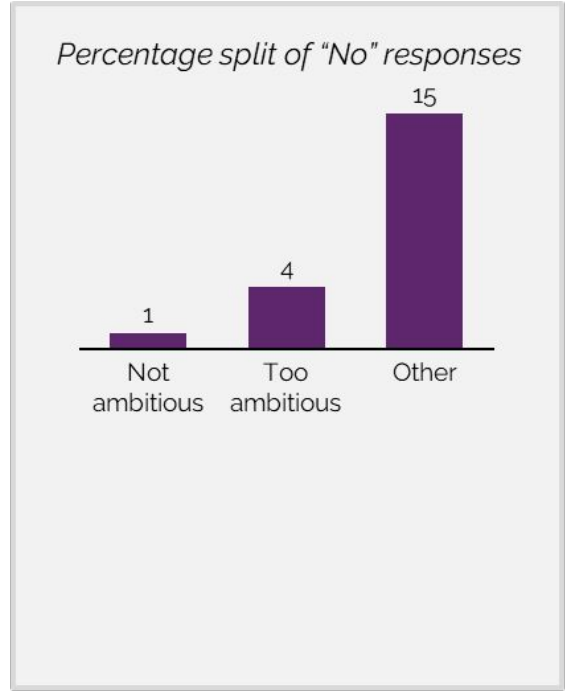
Feedback received

There was not a clear preference amongst stakeholders that responded to this question. Responders from the chemicals industry were more likely to answer "No". Please see the SBTi's responses to written comments on this question in this report.

Q14. Do you think that the SBTi's 1.5˚C-aligned cross-sector absolute emission reduction pathway is appropriate for setting targets on emissions from the self-generation of electricity and heat for manufacturing non-primary chemicals?







Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 14

Do you think that the SBTi's **1.5°C-aligned cross-sector absolute emission reduction pathway** is appropriate for **setting targets on emissions from the self-generation of electricity and heat for manufacturing non-primary chemicals**?

Stakeholder feedback	How this feedback will be addressed
A consistent use of underlying pathways, e.g. the IEA NZE pathway, to set targets is recommended for all aspects.	● The SBTi carefully reviews all target-setting methods to ensure they are consistent with other scenarios currently in use by the SBTi in terms of narrative, assumptions, and mitigation levers.
The pathway for self-generated electricity should be the power sector pathway. A lot of sectors rely on electrification to decarbonize, but if self-generated electricity is not as decarbonized as grid electricity, this decarbonization lever will not work as it should.	● The SBTi is not proposing that companies align emissions reduction from self-generated electricity with the ambition level of the broader power sector. This is consistent with how the SBTi treats self-generated electricity in other sectors and recognizes the unique nature of electricity generation by entities other than power utilities.
The pathway should promote the use of cogeneration systems, which can enhance energy efficiency by utilizing waste heat for electricity generation, thereby reducing emissions. Incorporating cogeneration and similar technologies in the pathway would help companies achieve significant emissions reductions more efficiently.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

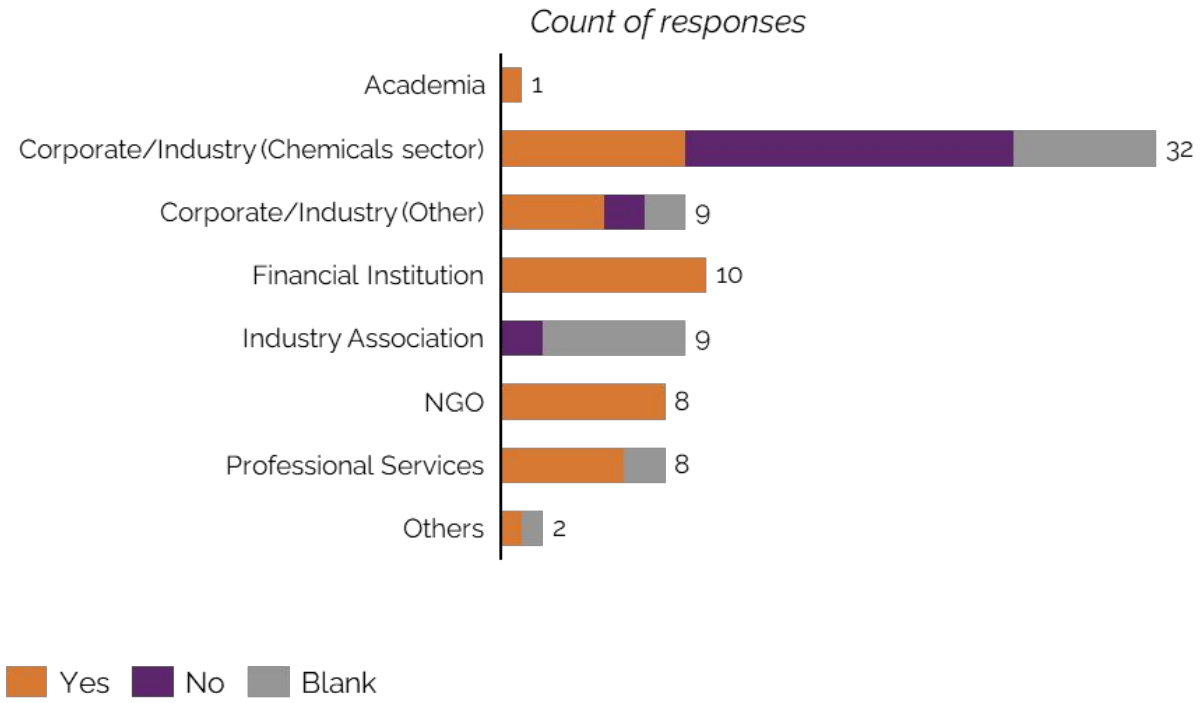
[Q15] - DETAILED SURVEY RESPONSES

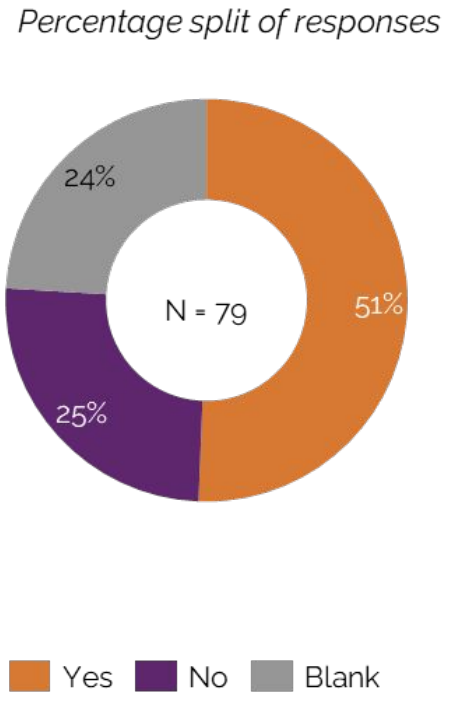
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Feedback received

A majority of stakeholders that answered this question supported mandatory target coverage on scope 3 category 1 emissions from purchased primary chemicals. Responders from the chemicals industry were more likely to not support the target. Please see the SBTi's responses to written comments on this question in this report.

Q15. Do you agree that targets on scope 3 category 1 emissions from purchased primary chemicals should be required, regardless of regardless of the contribution of these emissions towards their total scope 1, 2, and 3 inventory?





Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 15

Do you agree that targets on **scope 3 category 1 emissions from purchased primary chemicals** should be required, regardless of the contribution of these emissions towards their total scope 1, 2, and 3 inventory?

Stakeholder feedback	How this feedback will be addressed
Overlapping targets lead to overly detailed oversight, stifling flexibility and forcing companies to invest into non-cost-effective solutions. Preventing scope leakage and creating a level playing field can be guaranteed in a much simpler manner, by applying a cradle-to-gate approach as suggested in question 6, 8 and 9.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.
One of the argumentations given by the SBTi to have this additional scope 3 category 1 target is the risk of carbon leakage. However, this risk of carbon leakage is rather limited as: • Outsourcing of a significant raw material would likely trigger a requirement to re-baseline the company under current GHG Protocol guidance and SBTi general guidance. Existing targets would need to be confirmed against the new baseline. • Carbon footprint of products is gaining more importance throughout value chains and impacts supplier demands with economic consequences. The product carbon footprint is independent of the enterprise level Scope accounting and independent of outsourcing actions. Companies that outsource operations at the expense of the product carbon footprint attribute will need to manage the economic impacts with their customers.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.
Companies should have the flexibility to choose the most cost-effective manner for achieving their emission reduction goals.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 15

Do you agree that targets on **scope 3 category 1 emissions from purchased primary chemicals** should be required, regardless of regardless of the contribution of these emissions towards their total scope 1, 2, and 3 inventory?

Stakeholder feedback	How this feedback will be addressed
While this might work for direct tier 1 suppliers, it is difficult for the downstream user to be able to fully distinguish if a chemical that they purchase is primary chemical or a mixture (e.g. due to impurities in the purchased chemical), and hence difficult to set meaningful targets only covering primary chemicals in scope 3 category 1. If a target for scope 3 category 1 is to be made, it should be for the full category and not only for primary chemicals.	The criteria referenced by this consultation question applies only to "Tier 1" direct purchasers of primary chemicals. Companies further down the value chain that purchase derivatives of primary chemicals are not required to set a target on scope 3 category 1 emissions associated with purchased primary chemicals.
To avoid the target-setting standard to create distortion, companies purchasing base chemicals or other energy intensive chemicals such as industrial gases shall have a target on the corresponding 3.1 emissions aligned with the scope 1 and 2 target of the producer of said chemicals.	This comment is supportive of the criteria to require a scope 3 category 1 emissions target on purchased primary chemicals. However, the SBTi believes that allowing companies to utilize the existing spectrum of scope 3 target-setting options, including all allowable levels of ambition, will allow companies to set targets that best align with their circumstances.
Strongly agree that targets on scope 3 category 1 emissions from purchased primary chemicals should be required, regardless of the contribution of these emissions toward total scope 1, 2 and 3 inventory. It is critical to discourage the possibility of 'scope leakage', i.e. outsourcing production of primary chemicals from scope 1 into scope 3 category 1 emissions from purchased goods and services.	The SBTi received written comments in support of the current requirement as stated in the consultation draft.

Adapted in line with feedback / no response needed *Partly adapted in line with feedback* *For further consultation / feedback dismissed* *Further development & research needed*

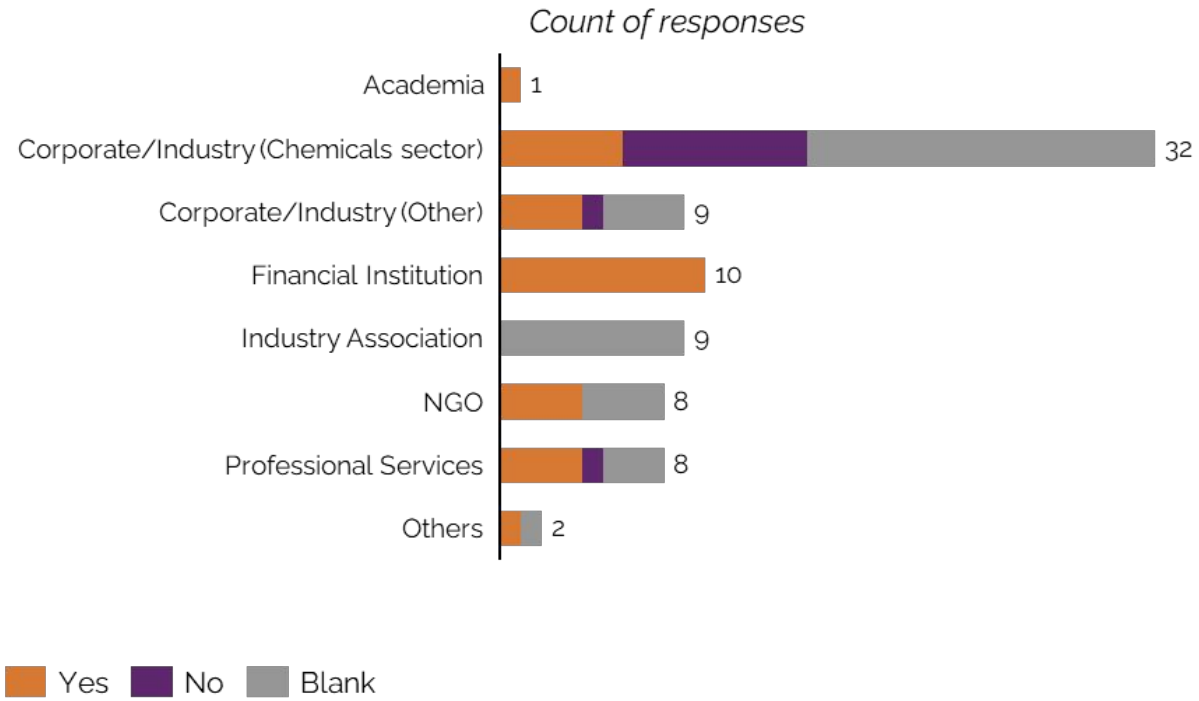
[Q16] - DETAILED SURVEY RESPONSES

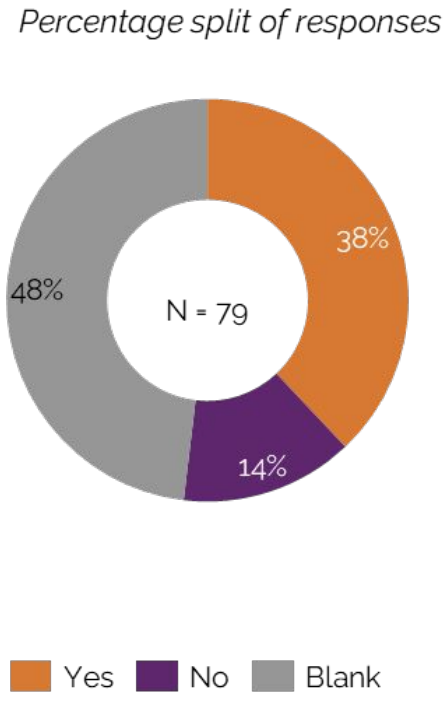
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Feedback received

A majority of stakeholders that answered this question supported mandatory target coverage on scope 3 category 11 CO2 emissions from the use-phase of urea-based fertilizers. Responders from the chemicals industry were more likely to not support the target. Please see the SBTi's responses to written comments on this question in this report.

Q16. Do you agree that targets on scope 3 category 11 CO2 emissions from sold urea-based fertilizers should be required, regardless of regardless of the contribution of these emissions towards their total scope 1, 2, and 3 inventory?





Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 16

Do you agree that targets on **scope 3 category 11 CO2 emissions from sold urea-based fertilizers** should be required, regardless of regardless of the contribution of these emissions towards their total scope 1, 2, and 3 inventory?

Stakeholder feedback	How this feedback will be addressed
The emissions need to be reported. If their contribution is significant, they will have to be included in the target, according to general SBTi criteria. Adding specific criteria for these products makes the guidance more complex/less understandable without clear benefits.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.
CO2 emission from the use of urea is CO2 emission that needs to be addressed. Since urea is a critical form of nitrogen fertilizers due to its high nitrogen content, it will continue to be a preferred form of fertilizers in many parts of the world. To reduce its CO2 emission, which is inherent to its chemical structure, the only option is to be able to use alternative sources of CO2 such as biogenic CO2 or recycled CO2. However, when using recycled CO2, emissions would still be counted. We would recommend that the urea CO2 target is replaced by an alternative feedstock target. Accounting for Carbon Capture and Utilization (CCU) is tricky since people sometimes argue that production of urea itself is a CCU process. An LCA comparison approach can be used where the CCU scenario can be compared with a status-quo scenario (i.e., today industry practice, business as usual) and the difference in LCA emissions between the 2 could be counted as emission reduction.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 16

Do you agree that targets on **scope 3 category 11 CO2 emissions from sold urea-based fertilizers** should be required, regardless of regardless of the contribution of these emissions towards their total scope 1, 2, and 3 inventory?

Stakeholder feedback	How this feedback will be addressed
Commenter's position is that urea CO2 should be included in scope 1. Hence a mandatory target for scope 3 category 11 will be obsolete (see our answer above for ammonia SDA). With the proposal of moving it to scope 3, we support to have mandatory scope 3 category 11 targets for urea CO2. However, criteria referred to in the draft guidance CHEM-C7 is stating any applicable method in the SBTi Corporate Net-Zero Standard. This we do not agree to as this will be too ambitious taking into account the availability of alternative non-fossil sustainable feedstock sources.	● Please see the prior response to the comment regarding accounting for CO2 emissions from the use-phase of urea-based fertilizers provided under the section on consultation questions 6, 8, and 9.
Urea is the dominant form in which nitrogen is applied to crops around the globe, with urea making up 40% of ammonia demand while ammonium nitrate is only 5% . It is unlikely that this will materially shift due to urea's high nitrogen content, relative affordability, and safety in transport and storage. For reference, the IEA's ammonia technology roadmap estimated a shift of 28% of urea to nitrate in their sustainable development scenario – ignoring social/market and regulatory factors necessary for this switch. There would still be >35% of nitrogen being applied as urea in 2050. The availability, and techno-economic feasibility of biogenic sources of CO2 for urea production is unknown. The role of nitrogen in maintaining and increasing soil carbon sinks should also be accounted for in the SDA to prevent soil degradation and loss of soil carbon if nitrogen is not supplied in sufficient amounts.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

[Q17] - DETAILED SURVEY RESPONSES

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

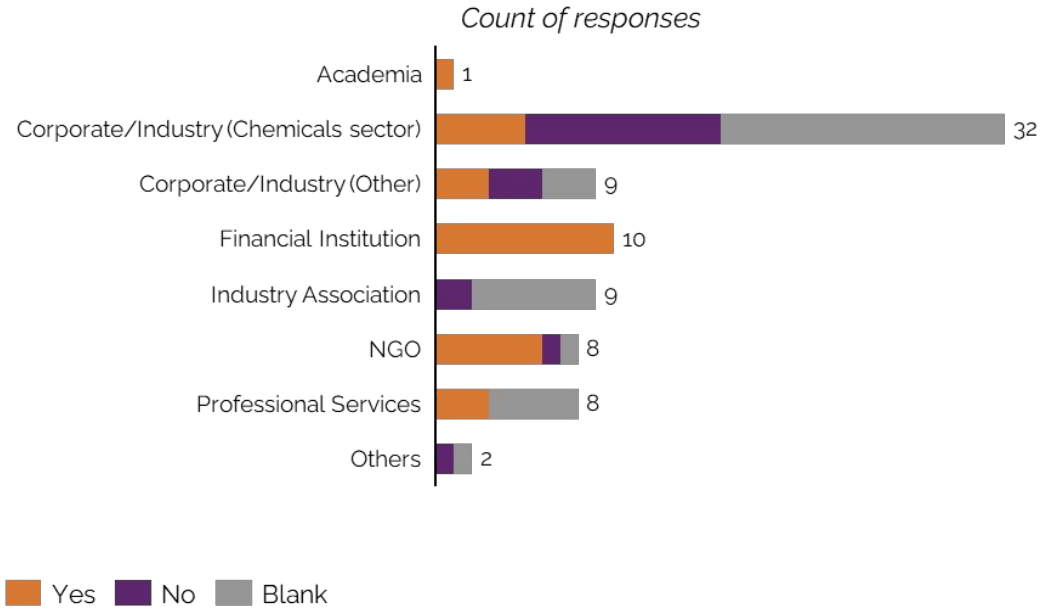
Feedback received

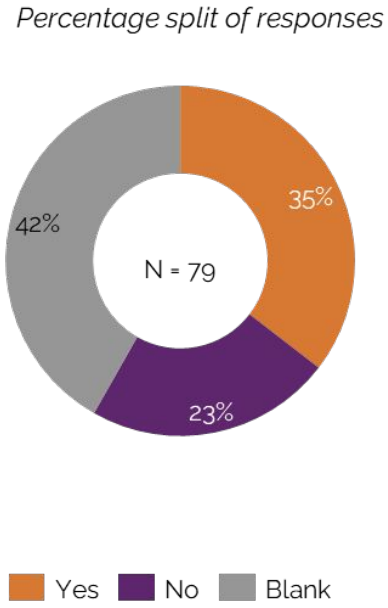
A majority of stakeholders that answered this question supported an absolute emissions metric. Responders from the chemicals industry were more likely to not support the absolute metric. Please see the SBTi's responses to written comments on this question in this report.

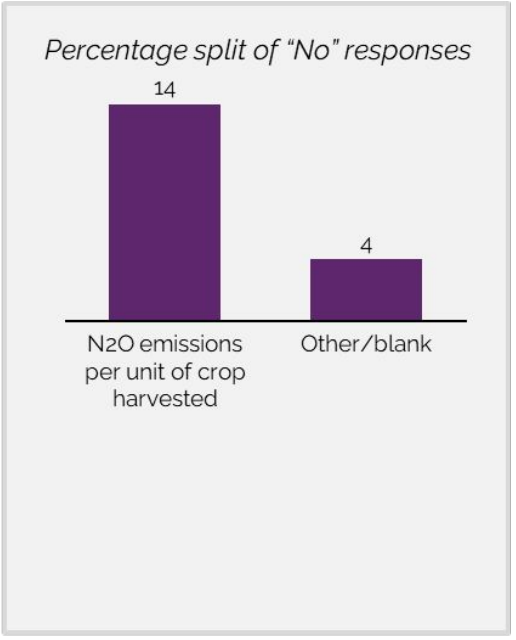
Q17. Do you agree that absolute emissions reduction is an appropriate metric for setting targets on N2O emissions from the use of nitrogen fertilizers?

Note, the respondents indicated:

- *Establish a **single global pathway** for N2O emissions intensity from N-fertilizer use (**2 responses**).*
- *Establish **region-specific pathways** for N2O emissions intensity from N-fertilizer use (**3 responses**).*
- *Establish **crop-specific pathways** for N2O emissions intensity from N-fertilizer use (**2 responses**).*







Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 17

Do you agree that **absolute emissions reduction** is an appropriate metric for setting targets on **N2O emissions from the use of nitrogen fertilizers**?

Stakeholder feedback	How this feedback will be addressed
• Scientific scenarios agree on the essential role of nitrogen use efficiency (NUE) as lever to decarbonize agriculture, and to balance food security needs with climate change mitigation. Only an intensity target includes all the mitigation levers that can be provided by the fertilizer industry, in particular improvements in NUE in combination with reductions of the emission factor of fertilize use when addressing their scope 3 category 11 emissions. On top, an intensity approach would harmonize the SDAs related to the food system (i.e. FLAG), allowing the value chain to join forces and collaborate to decarbonize food. Therefore, target setting on N2O emissions from use phase of fertilizers should be based on an output intensity metric (i.e., TCO2/T Crop produced) to incentivize more efficient fertilizer use (without resulting in a reduction in crop yield), while also incentivizing reduction in emissions intensity of production. • An intensity target will allow fertilizer companies to make progress toward a goal even while agricultural production increases. Eventually agricultural production will level out, and absolute emissions reductions will result from continued progress toward an intensity goal. But in the short- to medium-term, an intensity reduction target will drive more investment in the space, as those targets will be achievable.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 17

Do you agree that **absolute emissions reduction** is an appropriate metric for setting targets on **N2O emissions from the use of nitrogen fertilizers**?

Stakeholder feedback	How this feedback will be addressed
• Absolute decrease in fertilizer use to reduce downstream fertilizers emissions is not taking into account the negative climate (and broader) impacts of reducing fertilizers use. The appropriate use of fertilizers is vital to decrease the need for land-use change: Overuse of fertilizer needs to be avoided, to reduce emissions and other negative impacts on water, soil health and plant growth. However, if fertilizer is underutilized, it has significantly negative impacts for the climate, as well as food production and food security. Underuse of fertilizer leads to lower crop productivity, creating pressure for additional land use changes as more land will be required to produce the same amount of food, leading to other negative climate impacts (such as deforestation or reduction of other land areas), as well as increased fertilizer use. It is mentioned that NUE is the most important tool to reduce on-farm emissions from fertilizers use but (the method) does not permit its use to as part of a target companies to reduce emissions. • Target can be achieved if nitrification inhibitors are included. If reduction of scope 3 category 11 are only possible by reduction of volumes nitrogen applied, it neglects the need for nitrogen fertilizers for food production and the risk of yield losses. The criteria doesn't respect prognose of FAO for growing food demand. Other mitigation pathways like improved application methods for improving NUE are not included as well. Thus, the set criteria is unrealistic if mitigation measures are not included.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 17

Do you agree that **absolute emissions reduction** is an appropriate metric for setting targets on **N2O emissions from the use of nitrogen fertilizers**?

Stakeholder feedback	How this feedback will be addressed
We strongly support the inclusion of an absolute emissions reduction target on N2O use-phase emissions in the guidance. The production and use of nitrogen fertilizers accounts for around 5% of global greenhouse gas emissions, but recent studies have shown that these can be reduced by up to 80% by 2050 while continuing to ensure food security for all. It is crucial that fertilizer companies have an incentive to address emissions across their whole value chain, and particularly use-phase emissions, which account for more than two-thirds of fertilizer lifecycle emissions. Given the variability of N2O emissions intensity depending on geographical region and crop type, and the current lack of region- and crop-specific pathways for downstream N2O emissions intensity reductions, we agree that absolute emissions reduction is an appropriate metric for setting targets on N2O emissions from the use of nitrogen fertilizers. In particular, companies should not be permitted to use nitrogen use efficiency as a target-setting metric for addressing downstream scope 3 emissions. While NUE is an important mitigation lever, it is not a direct proxy for emissions. It is therefore not a suitable basis for target setting on this highly material source of fertilizer emissions.	● The SBTi received comments in support of a target-setting method based on absolute emissions of N2O from the use=phase of sold N-fertilizers. The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

[Q18] - DETAILED SURVEY RESPONSES

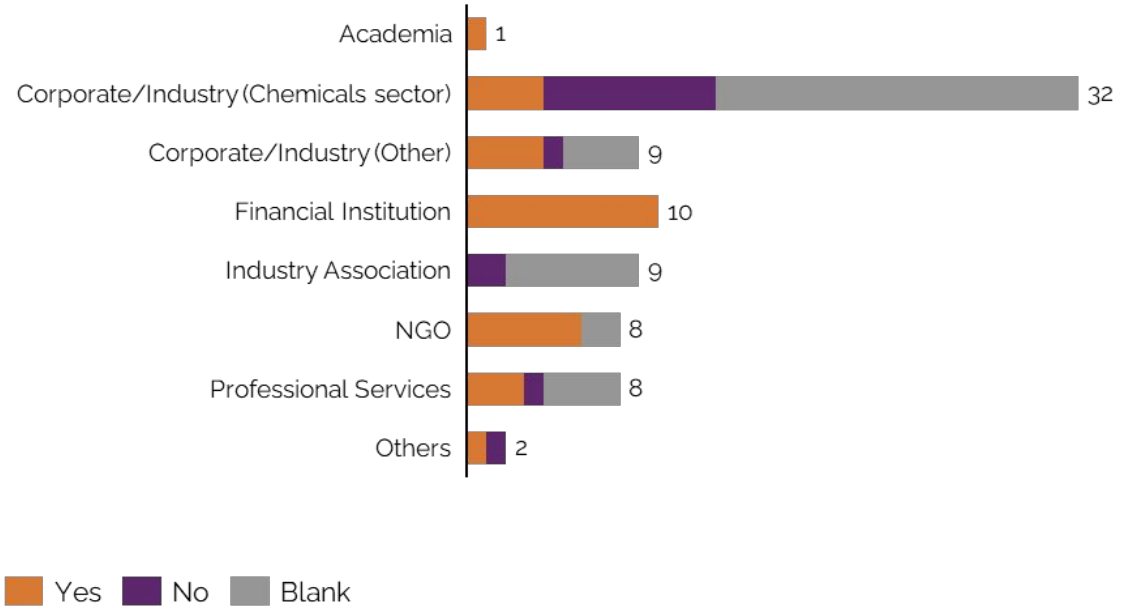
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Feedback received

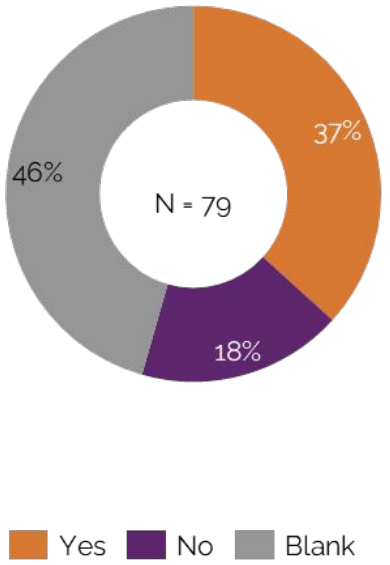
A majority of stakeholders that answered this question supported current pathway. Responders from the chemicals industry were more likely to not support the absolute metric. Please see the SBTi's responses to written comments on this question in this report.

Q18. Do you think that the proposed near-term absolute emissions reduction pathways presented in criteria CHEM-C8 of the consultation draft is an appropriate level of ambition for N2O emissions from the use of sold nitrogen fertilizers in scope 3 category 11?

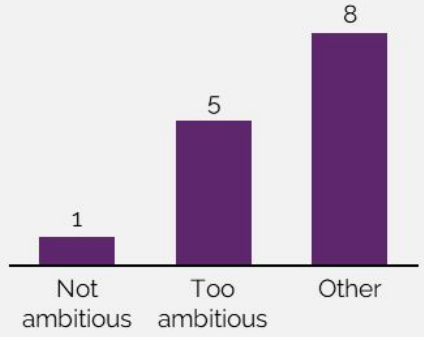
Count of responses



Percentage split of responses



Percentage split of "No" responses



Note, 1 respondents who voted "yes" noted that they thought the proposed target was not ambitious enough.

Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

[Q19] - DETAILED SURVEY RESPONSES

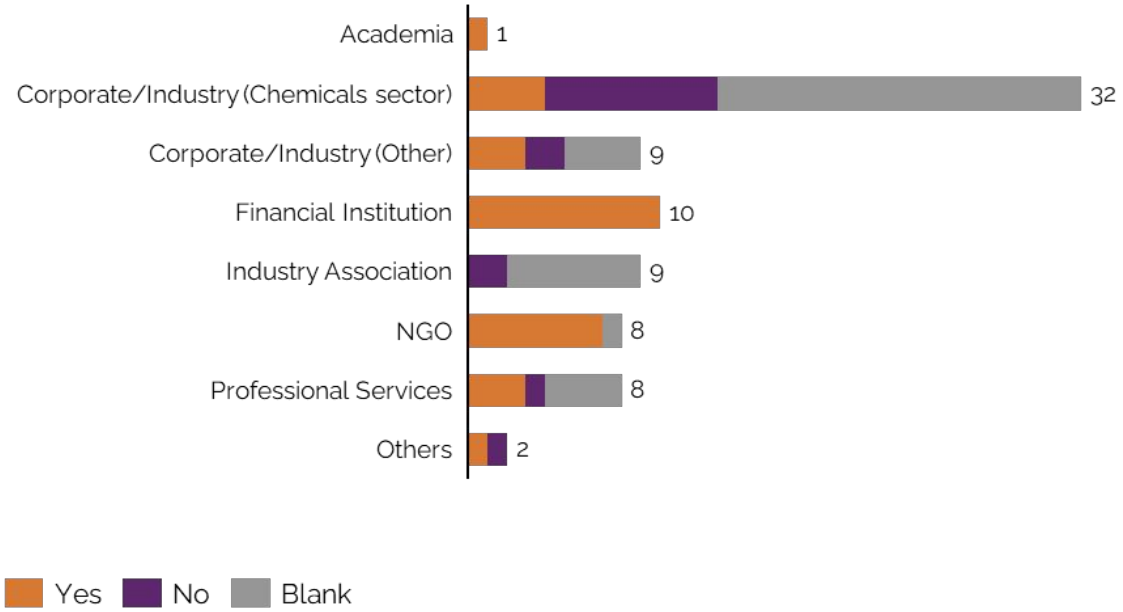
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Feedback received

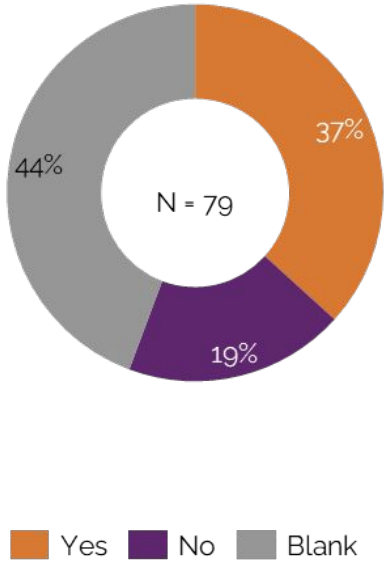
A majority of stakeholders that answered this question supported current pathway. Responders from the chemicals industry were more likely to not support the absolute metric. Please see the SBTi's responses to written comments on this question in this report.

Q19. Do you think that the proposed long-term absolute emissions reduction pathways presented in criteria CHEM-C9 of the consultation draft is an appropriate level of ambition for N2O emissions from the use of sold nitrogen fertilizers in scope 3 category 11?

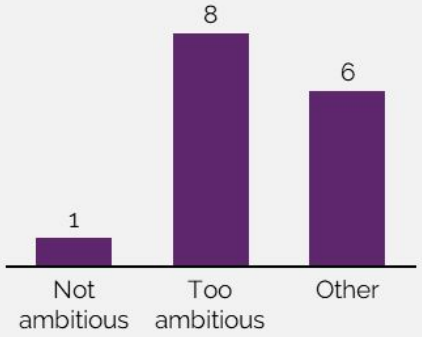
Count of responses



Percentage split of responses



Percentage split of "No" responses



Note, 1 respondents who voted "yes" noted that they thought the proposed target was not ambitious enough.

Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 18, 19

Do you think that the proposed **near-term absolute emissions reduction pathways** presented in criteria CHEM-C8 of the consultation draft is an appropriate level of ambition for **N2O emissions from the use of sold nitrogen fertilizers in scope 3 category 11**?

Do you think that the proposed **long-term absolute emissions reduction pathways** presented in criteria CHEM-C9 of the consultation draft is an appropriate level of ambition for **N2O emissions from the use of sold nitrogen fertilizers in scope 3 category 11**?

Stakeholder feedback	How this feedback will be addressed
• The proposed rate of 2.6% per year is based on averaging findings out of three scenarios of three studies of which underlying assumptions are different from studies referred to by IPCC (Gao & Cabrera-Serrenho), referring to levers beyond the influence of the fertilizer producer (Systemiq) or assumptions which are not transparent (McKinsey study). • The Greenhouse Gas Protocol sets conservativeness as a principle for accounting and reporting emissions (and removals) in the land sector, i.e, "use conservative assumptions, values, and procedures when uncertainty is high. Conservative values and assumptions are those that are more likely to overestimate GHG emissions and underestimate removals". We invite the SBTi to adhere to the same conservativeness principle, and apply average emission reduction factors by mitigation lever, without overstating the mitigation potential of any of them. The target proposed should be revised based on an in-depth analysis of the assumptions used by the three studies and aligning with the scientific studies referred to by IPCC guidelines 2019 and the Greenhouse Gas Protocol.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 18, 19

Do you think that the proposed **near-term absolute emissions reduction pathways** presented in criteria CHEM-C8 of the consultation draft is an appropriate level of ambition for **N2O emissions from the use of sold nitrogen fertilizers in scope 3 category 11**?

Do you think that the proposed **long-term absolute emissions reduction pathways** presented in criteria CHEM-C9 of the consultation draft is an appropriate level of ambition for **N2O emissions from the use of sold nitrogen fertilizers in scope 3 category 11**?

Stakeholder feedback	How this feedback will be addressed
• The current level of ambition contained in SBTi's proposed threshold for targets on these emissions, requiring a 2.6% reduction in absolute emissions per year, aligns with existing high-ambition 1.5˚C pathways for downstream nitrogen fertilizer emissions (e.g., SystemIQ and IFA 2022 and Gao & Serrenho 2023) and is therefore appropriate. • The current level of ambition, requiring a minimum 72% reduction in absolute emissions, aligns with existing 1.5˚C pathways for downstream nitrogen fertilizer emissions, such as those mentioned above, which see a 70-80% reduction in nitrogen fertilizer emissions by 2050. It is therefore appropriate.	● The SBTi received comments in support of the proposed absolute emissions target method. The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 18, 19

Do you think that the proposed **near-term absolute emissions reduction pathways** presented in criteria CHEM-C8 of the consultation draft is an appropriate level of ambition for **N2O emissions from the use of sold nitrogen fertilizers in scope 3 category 11**?

Do you think that the proposed **long-term absolute emissions reduction pathways** presented in criteria CHEM-C9 of the consultation draft is an appropriate level of ambition for **N2O emissions from the use of sold nitrogen fertilizers in scope 3 category 11**?

Stakeholder feedback	How this feedback will be addressed
SBTi recognizes that N2O emissions "present unique challenges in modelling and realizing emissions reductions" and that "FLAG Guidance is intended for companies with value chain activities that encompass broad land-related emissions" (page 17 of the draft guidance). We agree with both these statements, and do not see the logic of the proposed criterion C9 "companies shall set a long-term target on N2O emissions from the use of sold nitrogen fertilizers in scope 3 category 11 using the SBTi's FLAG Agriculture pathway". FLAG emissions include but are not limited to fertilizer emissions and present more opportunities for mitigation. N2O emissions are a specific type that requires a tailored target. In designing such target, the non-abatable fraction of N2O emissions must be accounted for. Note that AFOLU mitigation pathways from IPCC (2022) compatible with 1.5˚C warming, while highlighting the deep mitigation of CO2 emissions by 2050, display only a modest reduction of N2O emissions in the same time frame. The median of the scenarios in the category "limit warming to 1.5˚C with no or limited overshoot" (i.e., the most stringent in terms of mitigation) is around 12% N2O reduction in 2050 compared to 2019. In the same category, the scenarios in the high range of the distribution barely reach 40% reduction, while many project a net N2O increase in 2050. (see https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_Chapter03.pdf). Consistently with the recommendation for near-term target, note that also long-term ones should be translated in a crop-based intensity option.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 18, 19

Do you think that the proposed **near-term absolute emissions reduction pathways** presented in criteria CHEM-C8 of the consultation draft is an appropriate level of ambition for **N2O emissions from the use of sold nitrogen fertilizers in scope 3 category 11**?

Do you think that the proposed **long-term absolute emissions reduction pathways** presented in criteria CHEM-C9 of the consultation draft is an appropriate level of ambition for **N2O emissions from the use of sold nitrogen fertilizers in scope 3 category 11**?

Stakeholder feedback	How this feedback will be addressed
Pathways should be harmonized within different sectors, enabling companies in land-intensive sectors to delivers their FLAG targets.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

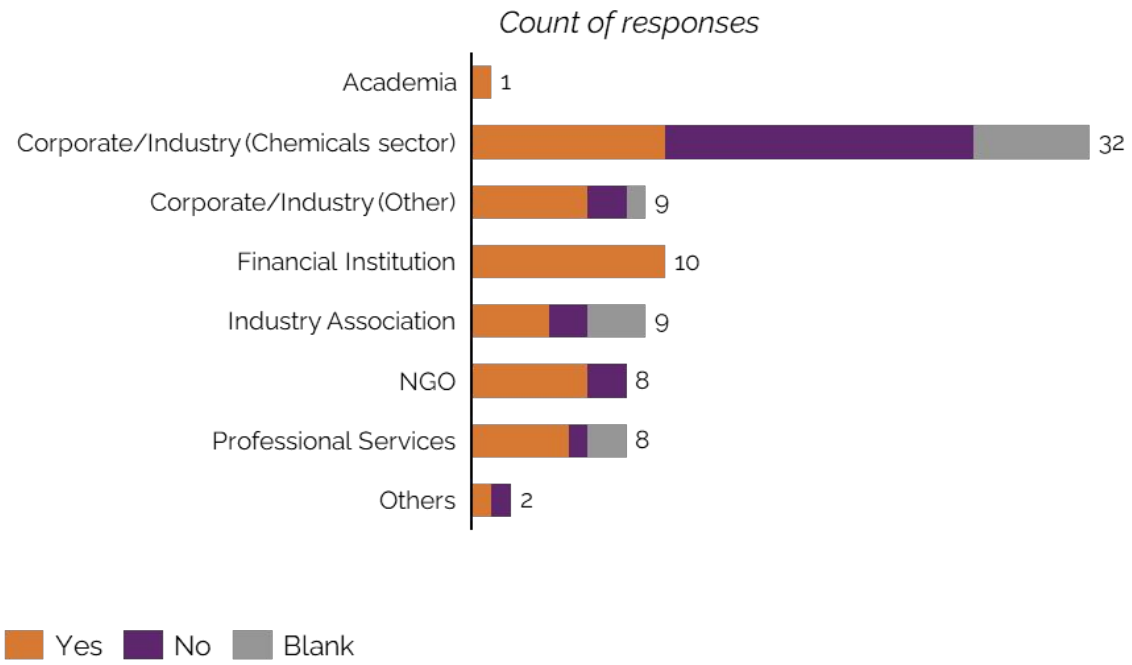
[Q20] - DETAILED SURVEY RESPONSES

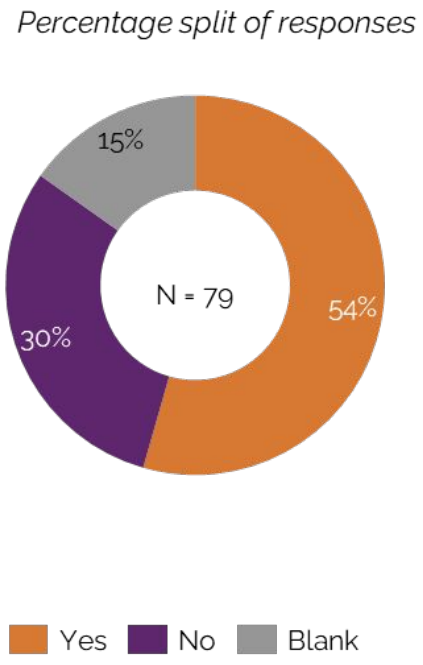
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Feedback received

A majority of stakeholders that answered this question supported an alternative feedstock target. Responders from the chemicals industry were more likely to not support the target. Please see the SBTi's responses to written comments on this question in this report.

Q20. Do you agree that a target requiring a minimum percentage of carbon-based alternative feedstocks is an appropriate metric for increasing the usage of these materials in the chemicals value chain, and thus increasing circularity and reducing the reliance on virgin fossil-based materials?





Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 20

Do you agree that **a target requiring a minimum percentage of carbon-based alternative feedstocks** is an appropriate metric for increasing the usage of these materials in the chemicals value chain, and **thus increasing circularity** and **reducing the reliance on virgin fossil-based materials**?

Stakeholder feedback	How this feedback will be addressed
Setting a target requiring a minimum percentage of carbon-based alternative feedstocks in function of GHG emission reduction target setting makes only sense when this is related to the relevant emission categories. Alternative feedstock targets will have an impact on the emissions in category 3.1 and 3.12 and therefore the use of alternative feedstock should be incentivized via accounting methods reflecting the effort of the companies using the alternative feedstock in the respective scope 3 emission categories. the circular content cut-off method is a correct way of addressing the emissions accounting. The circular content cut-off approach addresses the lack of emphasis on recycled content by crediting End of Life (EoL) treatment, thereby capturing circularity as an emissions reduction metric. This method more accurately reflects a company's circular activities and has received industry-wide support. The circular content cut-off method evaluates the emissions impact of circular products, recognizing them as having zero EoL emissions. This recognition is crucial for chemical companies to meet their scope 3.12 targets.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 20

Do you agree that **a target requiring a minimum percentage of carbon-based alternative feedstocks** is an appropriate metric for increasing the usage of these materials in the chemicals value chain, and **thus increasing circularity** and **reducing the reliance on virgin fossil-based materials**?

Stakeholder feedback	How this feedback will be addressed
There are currently no alternative primary chemicals available at a commercial level. This requirement would jeopardize companies committing to SBTi. I would suggest removing that requirement until there is availability in the market.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.
There is no explicit need on setting a mandatory target to use a minimum amount of "alternative feedstocks". Anyway, the reduction of fossil carbon-based feedstocks and replacement by alternative materials is one major lever to meet scope 3 emission targets, at least net-zero targets. Companies should remain free in their decision on how to achieve their scope 3 science-based targets. By setting mandatory targets on a specific category level the scope of action for companies is unnecessarily restricted. The setting of scope 3 targets according to the cross-sector absolute emission reduction pathway already includes the transition to renewable feedstock by considering scope 3 categories 1 and 12.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 20

Do you agree that **a target requiring a minimum percentage of carbon-based alternative feedstocks** is an appropriate metric for increasing the usage of these materials in the chemicals value chain, and **thus increasing circularity** and **reducing the reliance on virgin fossil-based materials**?

Stakeholder feedback	How this feedback will be addressed
The exclusion of mechanical recycling from the SDA translates in an ambition level for the alternative feedstock target that is too high and unfeasible for the chemicals industry (which would rely today on renewable-based feedstock and plastic waste for advanced/chemical recycling).	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.
It's oversimplifying the solution portfolio needed to decarbonize the sector while risking providing a wrong signal to companies and investors to shift their resource to options ("false solutions') that only shift the burden in most cases. Instead, the resource allocation along the layers (of the principle) of waste hierarchy is a far better matrix to ensure that the most effective GHG reduction (i.e., reduction and prevention) is prioritized before (safer) alternatives are considered.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

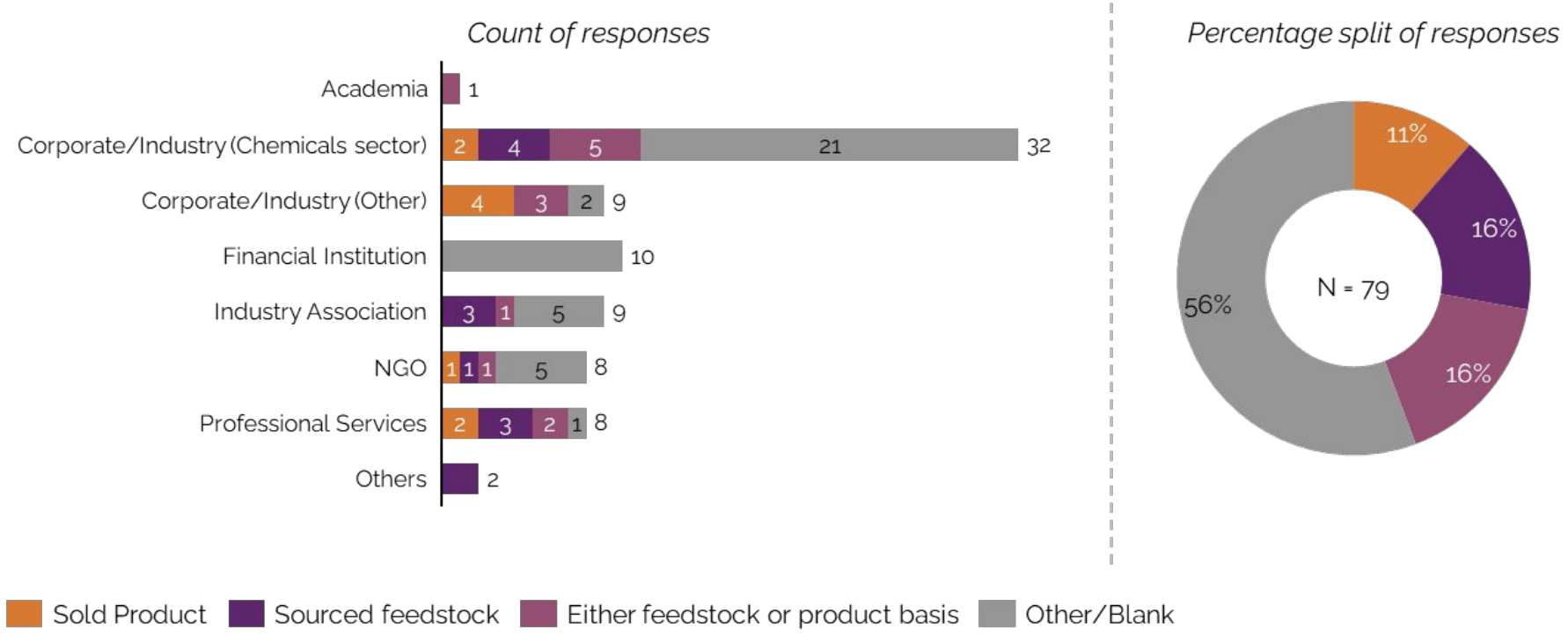
[Q21] - DETAILED SURVEY RESPONSES

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Feedback received

There was no clear preference amongst stakeholders that answered this question on the basis for an alternative materials target.

Q21. Do you agree that the target on share of alternative materials should be set based on a company's sourced feedstock, or should the target be based on a company's sold product considering data availability for such metrics?



Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 21

Do you agree that the **target on share of alternative materials** should be set based on a **company's sourced feedstock**, or should the target be based on a **company's sold product** considering data availability for such metrics?

Stakeholder feedback	How this feedback will be addressed
• The quality and reliability of the data will be higher based on feedstock rather than sold products. • Companies should be enabled to choose between feedstock, product, or mix of both, to set a target on share of alternative materials. • Process losses of alternative carbon inputs should be accounted for and guidance should be provided on how to account for the losses. • The target should be set based on sold product in order to be able to have both physical and chemical traceability of content in final product. • Sold products aligns with realistic amounts that have been used to manufacture such product (also applying consumption and conversion factors) and gives an accurate figure of annual results, while sourced feedstock might create some artificial measure and be less accurate especially in cases where not all volume is used within the year and rather stocked for following year production.	● Comments were received that supported each of the presented options for the basis of an alternative material target: feedstocks, products, or the flexibility to choose either. However, there was not a clear consensus among responders that answered this consultation question. While the SBTi recognizes that targets set on a product basis may better represent the content of alternative materials in the offering sold by the company, we feel that the availability of data on the content of feedstocks should be readily available to purchasers. Additionally, the thresholds for alternative feedstock percentages were calculated based on alternative materials used to produce primary chemicals and certain functional bio-based materials that are in use. Therefore, we are not revising the basis for the alternative feedstock target.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

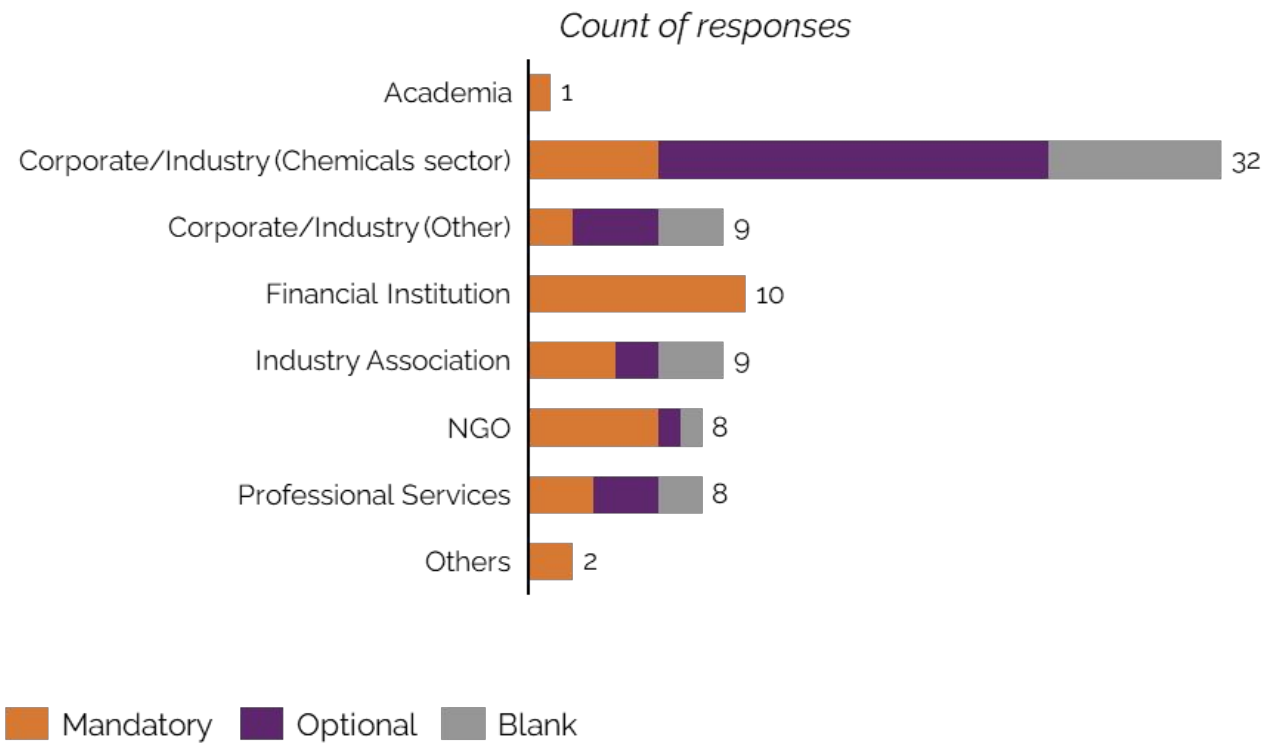
[Q22] - DETAILED SURVEY RESPONSES

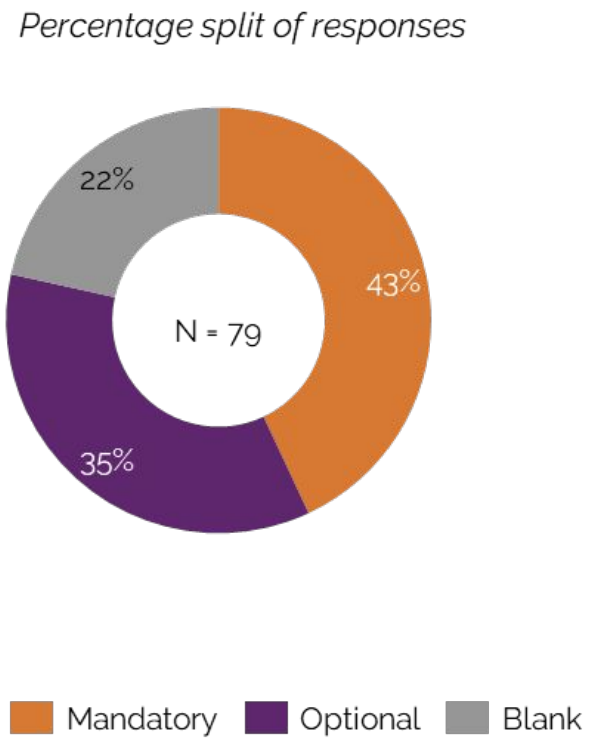
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Feedback received

A majority of stakeholders that answered this question supported a mandatory. Responders from industry were more likely to not support the target. Please see the SBTi's responses to written comments on this question in this report.

Q22. Should this target be mandatory or optional for companies that source carbon-based raw materials?





Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

[Q23] - DETAILED SURVEY RESPONSES

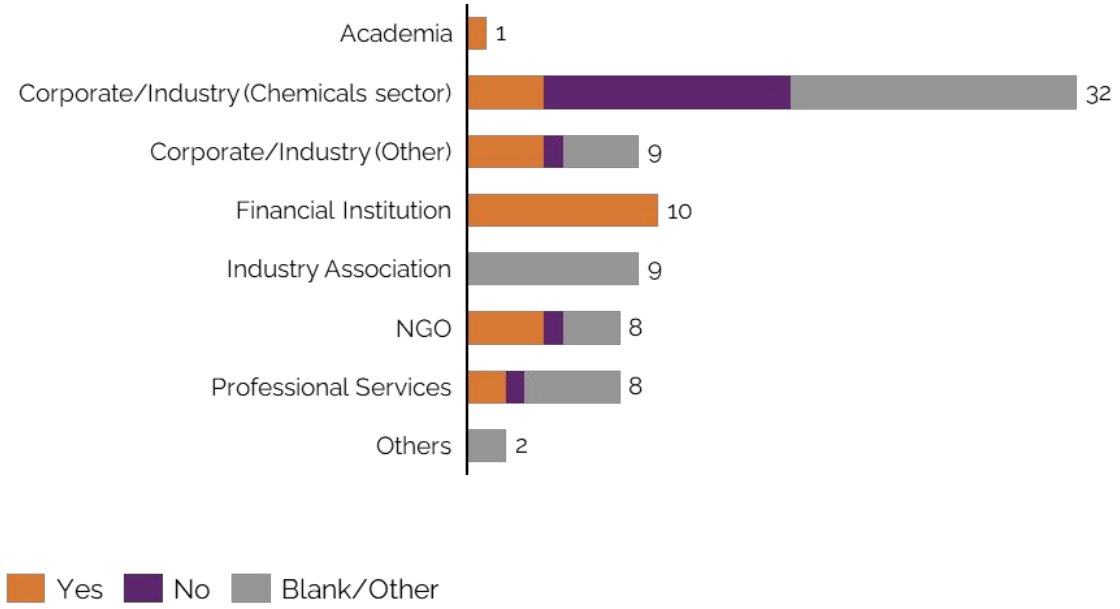
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Feedback received

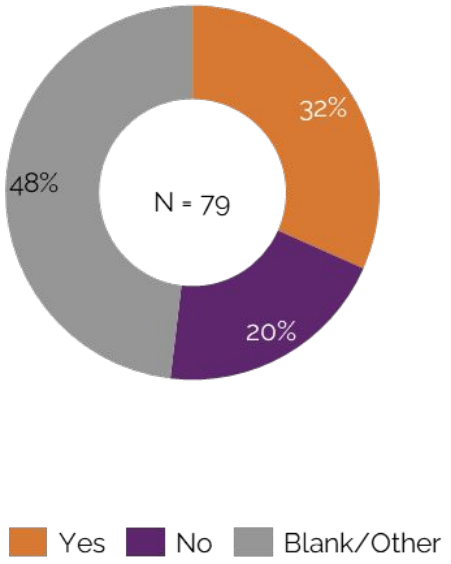
A majority of stakeholders that answered this question supported the thresholds. Responders from the chemicals industry were more likely to not support the thresholds. Please see the SBTi's responses to written comments on this question in this report.

Q23. Do you agree with the proposed minimum thresholds of sourced alternative feedstocks that are presented in the draft chemicals sector target-setting tool?

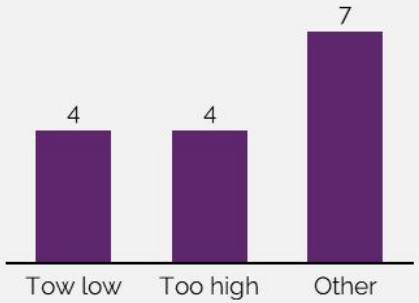
Count of responses



Percentage split of responses



Percentage split of "No" responses



One responder selected "No" but did not respond to this follow-up question on why the pathway is inappropriate.

Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 23

Do you agree with the **proposed minimum thresholds of sourced alternative feedstocks** that are presented in the draft chemicals sector target-setting tool?

Stakeholder feedback	How this feedback will be addressed
The minimum threshold for alternative feedstocks should be very cautiously approached in the beginning, ramping up over time: The switch to alternative feedstocks is challenging for companies, in particular without regulatory support. We believe such a target will be a valuable driver of de-fossilization, but also consider that a cautious approach might be prudent, based on the understanding that these feedstocks currently often come with higher prices and not automatically provide lower GHG emissions (i.e., due to lack of 100% renewable energy or because innovative technologies still require further development and optimization).	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.
We are concerned that the draft guidance as it currently stands does not adequately address the tradeoffs between the uptake of alternative feedstocks in the chemicals sector and broader sustainability impacts associated with alternative feedstocks, particularly land-use change impacts associated with biomass feedstocks. It would be ideal to include in the feedstock target requirement a cap on companies' total use of biomass feedstocks. However, we acknowledge that this may be challenging given that biomass availability is highly geographically specific and there may not be sufficient pathways available detailing biomass availability in different geographic regions. And an appropriate level of biomass use will depend on a company's activities and product portfolio. In the absence of such a cap, the SBTi should include detailed sustainability criteria to be adopted by any companies using biomass feedstocks, alongside monitoring, verification, and reporting requirements for those feedstocks.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period. Additionally, the SBTi will monitor the outcomes of the GHG Protocol's Guidance on the Land Sector and Removals, which is expected to contain additional guidance on accounting for emissions from the value chains of bio-based materials. The SBTi requires the GHG Protocol standards to be followed for GHG accounting of corporate inventories.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 23

Do you agree with the **proposed minimum thresholds of sourced alternative feedstocks** that are presented in the draft chemicals sector target-setting tool?

Stakeholder feedback	How this feedback will be addressed
The bio-based products considered in this target shall not come from deforested land. That should be stated in the guidance.	● The SBTi will revise the criteria to include a recommendation that companies ensure that no sourced bio-based materials are associated with deforestation.
Propose to use the recommended target as minimum threshold.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.
The use of alternative feedstocks is a good but costly idea that needs to mature. The proposed minimum thresholds are appropriate and provide a balanced approach to promoting the transition to sustainable and circular materials in the chemicals value chain.	● The SBTi received multiple comments, such as this example, in support of the current thresholds for target setting on alternative feedstocks.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

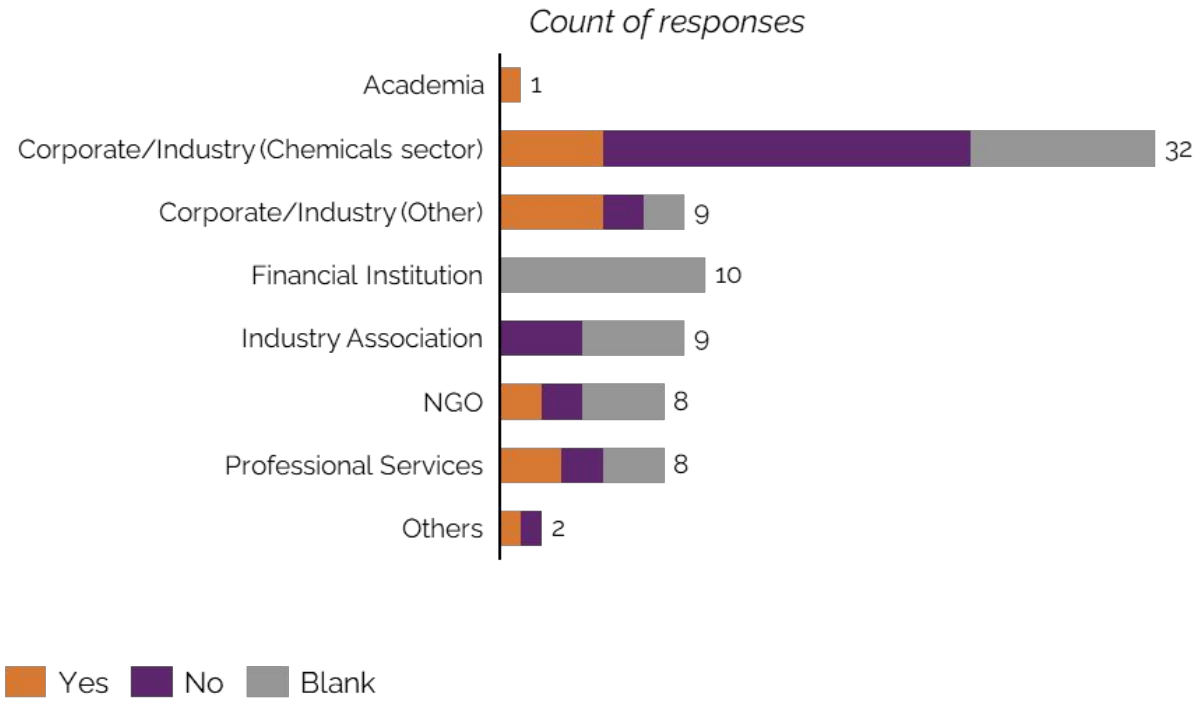
[Q24] - DETAILED SURVEY RESPONSES

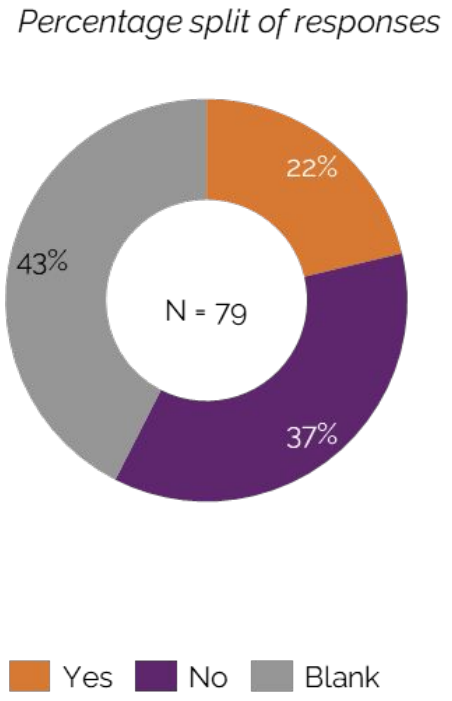
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Feedback received

A majority of stakeholders responded that the draft guidance does not incentivize all relevant emissions mitigation and/or abatement measures. Please see the SBTi's responses to written comments on this question below.

Q24. Do you agree that the draft guidance incentivizes all relevant emissions mitigations and/or abatement measures for the chemicals sector's net-zero transition on a 1.5˚C-aligned pace?





Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 24*

Do you agree that the draft guidance **incentivizes all relevant emissions mitigations and/or abatement measures** for the chemicals sector's net-zero transition on a 1.5˚C-aligned pace?

** This consultation question asks for general feedback. Comments provided as part of this question that have already been addressed in the main theme summaries for previous consultation question topics may not be repeated here.*

Stakeholder feedback	How this feedback will be addressed
• To my understanding, this draft guidance is on a broader extent on how the targets would be set, however it may still be unclear for the chemicals sector on how all these can apply to their daily business, for example refrigerants, detergents and other common chemicals. • The draft guidance does not fully address the unique challenges associated with emissions from certain chemical production processes, such as phosphoric acid production, which involves unavoidable organo-mineral CO2 emissions that are difficult to abate with current technologies.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.
It is crucial to expand the guidance to include clear instructions on topics from Annex 2 related to scope 3 accounting, such as Carbon Capture and Utilization (CCU), recycling, biobased feedstocks, and the use of mass balance. These measures are essential for enabling companies to reduce their scope 3 emissions, particularly within the chemicals sector. Without such guidance, companies may face delays in taking action, as it remains unclear how to integrate these measures into their strategies and develop their mitigation roadmaps..	● The SBTi has provided guidance in areas where we felt a chemicals sector-specific perspective was warranted; however, we have, for the most part, not instituted GHG accounting guidance or requirements that go beyond those from the GHG Protocol and other similar sources. Our intent is not to redefine the GHG accounting methods for the chemicals sector. Companies can, and should, continuously work to improve their accounting methods to increase data accuracy and thus allow for measurable steps toward their targets.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 24*

Do you agree that the draft guidance **incentivizes all relevant emissions mitigations and/or abatement measures** for the chemicals sector's net-zero transition on a 1.5˚C-aligned pace?

** This consultation question asks for general feedback. Comments provided as part of this question that have already been addressed in the main theme summaries for previous consultation question topics may not be repeated here.*

Stakeholder feedback	How this feedback will be addressed
The current draft guidance requires companies to make progress towards all different criteria, which might result in an overall lower GHG emission reduction due to less efficient spending of the available means.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 24*

Do you agree that the draft guidance **incentivizes all relevant emissions mitigations and/or abatement measures** for the chemicals sector's net-zero transition on a 1.5˚C-aligned pace?

** This consultation question asks for general feedback. Comments provided as part of this question that have already been addressed in the main theme summaries for previous consultation question topics may not be repeated here.*

Stakeholder feedback	How this feedback will be addressed
• General concern on the approach to mass-balance, free credit transfers and traceability, especially when primary chemicals are used downstream in mixtures. • Given the advantages of the use of trading RNG (renewable natural gas) certificates for the development of bio-sourced feedstock production, we think common sense should prevail; we therefore urge SBTi, through the Chemicals Sector Guidance, to EXPLICITLY allow the use of mass-balanced RNG certificates for sourcing bio-based feedstock and calculating their share WITHOUT discrimination between traded/transferred or directly supplied certificates. Other mass-balanced biofuels certificates, which certify the presence of a quantity of biofuel that can be mixed with fossil fuel, should similarly be explicitly recognized, traded or not, when the trading mechanism allows for the certificates to follow best practices around traceability and avoidance of double claiming/double counting. • Currently, neither the Greenhouse Gas (GHG) Protocol nor the Science Based Targets initiative (SBTi) accept mass-balance for corporate scope 3 accounting. Given the challenges of mass-balance approach, the commenter urges the development of an internationally recognized standard that addresses the language (terms and definitions) used in relation to mass-balance and clearly distinguishes between the different mass-balance methods, both in terms of process and in terms of outcome.	● The SBTi will continue to evaluate this feedback regarding use of the mass balance approach in GHG accounting and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

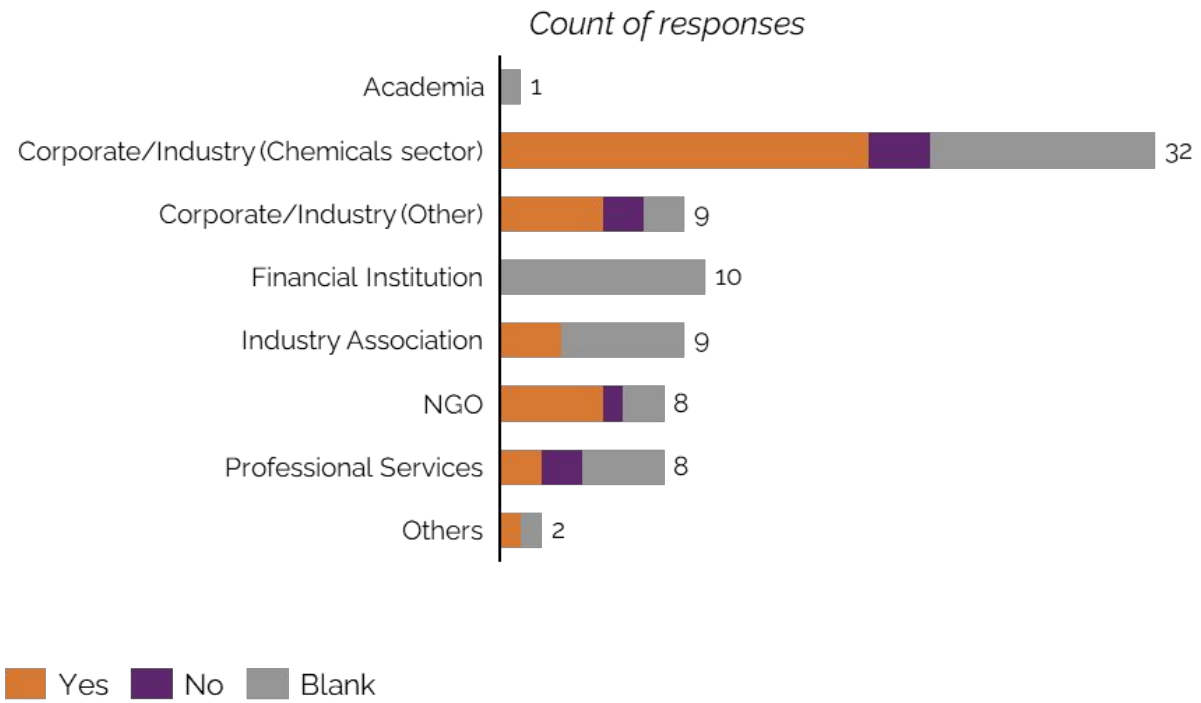
[Q25] - DETAILED SURVEY RESPONSES

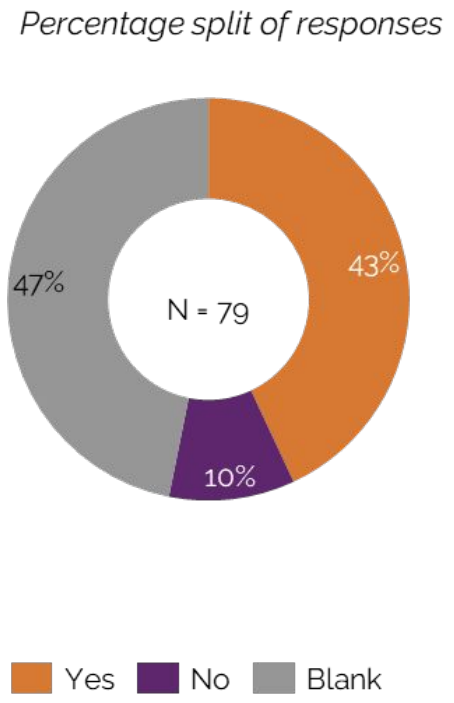
SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Feedback received

A majority of stakeholders responded that the draft guidance does incentivize actions that may be incompatible with the sector's net-zero transition. Please see the SBTi's responses to written comments on this question below.

Q25. Does the draft guidance incentivize any actions that may be incompatible with the chemicals sector's net-zero transition on a 1.5˚C-aligned pace?





Source: Chemicals Sector Guidance 1st Public Consultation Survey
N = [Number of responses to this question]

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 25*

Does the draft guidance **incentivize any actions that may be incompatible** with the chemicals sector's net-zero transition on a 1.5˚C-aligned pace?

** This consultation question asks for general feedback. Comments provided as part of this question that have already been addressed in the main theme summaries for previous consultation question topics may not be repeated here.*

Stakeholder feedback	How this feedback will be addressed
The requirement to make progress towards all different criteria and the additional mandatory criteria on feedstock targets, which are currently not reflected in a correct accounting methodology, will result in divergence of efforts and means over the different criteria. This will create inefficiencies and potentially hamper the chemicals sector's net-zero transition on a 1.5˚C aligned trajectory.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.
The draft discourages mechanical recycling. This is currently an established technology that is within reach to many chemical companies.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.
If targets are perceived as overly ambitious, they may discourage organizations from setting their own realistic yet challenging goals. When targets are set too high, they can seem unattainable, leading organizations to either under commit or avoid setting targets altogether. It is crucial for targets to strike a balance between ambition and feasibility to encourage meaningful progress while maintaining motivation and engagement.	● It is not the SBTi's intent to set criteria for targets that are unobtainable. For this reason, we seek publicly available emissions scenarios that explicitly consider technological, economic, and sustainability constraints in their modeling. The SBTi's mission is to drive science-based climate action in the corporate sector consistent with limiting warming to 1.5˚C. This level of ambition is rightly very challenging to achieve; however, it is necessary to spur meaningful action.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 25*

Does the draft guidance **incentivize any actions that may be incompatible** with the chemicals sector's net-zero transition on a 1.5°C-aligned pace?

** This consultation question asks for general feedback. Comments provided as part of this question that have already been addressed in the main theme summaries for previous consultation question topics may not be repeated here.*

Stakeholder feedback	How this feedback will be addressed
Chemical recycling activities, specifically pyrolysis and gasification for feedstock recycling, are energy-intensive and currently result in high emissions, both from heat generation and as process by-products. There are longstanding concerns about the technical and economic viability of chemical recycling, which are added to by the need to abate process emissions. It is uncertain whether it will be possible to scale chemical recycling for feedstock substitution, and especially whether this can be achieved while delivering against emissions targets. SBTi should consider acknowledging these risks in the guidance, which may compromise feedstock substitution efforts and emissions reduction targets.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 26*

Do you have any comments on the following aspects of the tool (you may select more than one). Please note that this question is about the function of the tool itself. Please address any comments regarding the underlying pathway or method data in the questions above.

Stakeholder feedback	How this feedback will be addressed
The guidelines state that the Chemicals Sector Target-Setting Tool requires scope 1 and 2 emissions within the SDA target boundary in the base year to be reported separately. However, the tool does not make provisions for separating scope 1 and 2 emissions as it clusters all electricity emissions into one entry, whether self-generated or purchased. The same can be said with the emissions from heat.	● The SBTi will revise the draft Chemicals Target-setting Tool to ensure the instructions are consistent with the data requirements needed to calculate targets.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 27*

Draft SBTi Chemicals Sector Guidance: General Comments

** This consultation question asks for general feedback. Comments provided as part of this question that have already been addressed in the main theme summaries for previous consultation question topics may not be repeated here.*

Stakeholder feedback	How this feedback will be addressed
The mechanism is not clear on how to use the chemicals sector SDA and hydrogen end-user sectors SDAs when a hydrogen producer serves multiple end users. Example: A hydrogen producer currently supplying 50% of hydrogen to refineries, 30% to ammonia producers and 20% to methanol producers. Since SDAs for these sectors define criteria as emissions intensity reduction for the end products, how should these criteria be applied to a hydrogen producer?	🟠 The SDA target-setting pathways for primary chemicals are inherently linked to the physical production method on which the underlying emissions intensity metric is based. For production activities that utilize hydrogen as a key component (primarily ammonia, methanol, and steel production), the emissions intensity metric uses the end-product activity output (e.g., tons of ammonia produced). The SBTi recognizes that companies may produce hydrogen that is used for multiple end purposes. We will revise the draft to include additional guidance on how these companies could apply SDA targets that align with the target boundaries for the applicable SDA pathways.
Due to hydrogen's role as an energy carrier in decarbonizing hard-to-abate sectors, production volumes are anticipated to increase significantly in such a way that even with low-CI at a product level, absolute company emissions may increase. However, the holistic effect on the economy resulting from this new production is a large overall reduction in carbon emissions. Therefore, the commenter recommends the introduction of some mechanism to account for this overall net environmental benefit within the SBTi framework which includes producers of hydrogen as an energy carrier, not just the end users of these products.	⚫ The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

🟢 *Adapted in line with feedback / no response needed* 🟠 *Partly adapted in line with feedback* 🔴 *For further consultation / feedback dismissed* ⚫ *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 27*

Draft SBTi Chemicals Sector Guidance: General Comments

** This consultation question asks for general feedback. Comments provided as part of this question that have already been addressed in the main theme summaries for previous consultation question topics may not be repeated here.*

Stakeholder feedback	How this feedback will be addressed
The guidance should address additional "hard-to-abate" processes within the chemicals sector, such as carbon black or phosphoric acid production.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.
The definition of 'low emission hydrogen' is very weak as it does not contain any threshold. Since the guidance requires GHG emission targets, the consequences of such weak definition is very limited for the guidance. However, we would not want this definition to be reused elsewhere. We propose the inclusion of the definition of a GHG emission intensity threshold corresponding to similar levels to what the UK and the USA have in their respective national legislation (2,4 kg CO2eq / kg H2 or 2,5 kg CO2eq / kg H2).	● As noted by this commenter, the SBTi does not utilize the definition for low emission hydrogen as part of any target-setting criteria, therefore we will not adopt a specific definition for what constitutes low emissions hydrogen. However, for informational purposes, we may revise the draft to reference relevant example definitions of "low/no-carbon hydrogen" that include emissions intensity thresholds, such as those suggested by the commenter.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 27*

Draft SBTi Chemicals Sector Guidance: General Comments

** This consultation question asks for general feedback. Comments provided as part of this question that have already been addressed in the main theme summaries for previous consultation question topics may not be repeated here.*

Stakeholder feedback	How this feedback will be addressed
The SBTi Chemicals Sector Guidance is too complex and is focusing on the base-chemical producers ignoring the large group of other chemicals companies. There is only an additional set of criteria which the other chemicals companies have to fulfill above the requirements formulated in the cross-sectorial SBTi net-zero standard.	● The SBTi will continue to evaluate this feedback and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SUMMARY OF CONSULTATION FEEDBACK BY CONSULTATION QUESTION

Consultation Question 28*

Supplemental memorandum describing the sources of data for the proposed Sectoral Decarbonization Approach (SDA) target-setting pathways for primary chemicals : General Comments

** This consultation question asks for general feedback. Comments provided as part of this question that have already been addressed in the main theme summaries for previous consultation question topics may not be repeated here.*

Stakeholder feedback	How this feedback will be addressed
The supplemental memorandum should provide a comprehensive overview of the data sources and methodologies used to develop the SDA target-setting pathways for primary chemicals This should include details on the selection of emissions scenarios, the rationale for the chosen data sets, and the alignment with existing industry standards and benchmarks. Transparency in the data sources and the assumptions made during the modeling process is crucial for building trust and ensuring the credibility of the targets. The memorandum should also highlight any limitations or uncertainties in the data and how they were addressed in the development of the pathways. Additionally, there is a lack of data to support the exclusion of scope 3 category 11 from the FLAG Guidance for fertilizers, which needs to be reconsidered to ensure a comprehensive and accurate emissions accounting.	● The draft and supplemental data memorandum include the SBTi's rationale for why the IEA's NZE Scenario was chosen as the basis for the SDA target-setting pathways. It also contains a detailed explanation of how the data for the pathways was derived from publicly available reports on the NZE Scenario's outputs, including how the SBTi estimated any required data that was not available in the reports. The SBTi will continue to evaluate the feedback regarding the treatment of scope 3 category 11 emissions from sold fertilizers, and will provide a summary of any relevant revisions made to the draft as part of the publication materials for the 2nd consultation period.

● *Adapted in line with feedback / no response needed* ● *Partly adapted in line with feedback* ● *For further consultation / feedback dismissed* ● *Further development & research needed*

SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

NEXT STEPS

NEXT STEPS FOR THE DEVELOPMENT PROCESS

The next steps in the development of the **Chemicals Sector Guidance** are the revision of the first Public Consultation Draft to address feedback received, and publication of the Second Public Consultation Draft for a minimum of 45 days - expected to begin in November 2024.

The full log of feedback received during the first consultation period is available at the SBTi's chemicals sector page.

SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

DISCLAIMER

DISCLAIMER

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