

SUMMARY OF THE SBTi STEEL GUIDANCE PUBLIC CONSULTATION FEEDBACK

July 2023

PARTNER ORGANIZATIONS



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INTRODUCTION

- From November 23, 2022 to January 23, 2023 the [Science Based Targets initiative \(SBTi\)](#) held a two month-long public consultation for the Steel Science Based Target Setting Guidance and Tool.
- The objectives, ensure the criteria and guidance to support steel companies in their decarbonization journey are robust, clear, and practical.
- 61 total responses were received from industry, NGOs, consulting firms, academia and public sector.
- Watch the public consultation launch webinar recording [here](#).



SCIENCE
BASED
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION



CONSULTATION RESPONSES SUMMARY

- Most responses came from industry (65%), followed by NGOs (28%), with the remainder from academia and government.
- There was good geographical coverage, although with fewer responses from Central and South America, Middle East and Africa.
- The topics of the core boundary, the pathway, ambition level, scrap definition and its calculation, and scope 3 methane emissions were the main reasons for comments suggesting changes.
- Aside from these topics, there was overall support for the choice of the pathways and the scrap-input-dependant approach from all types of stakeholders.
- Relevant comments were made about improving clarity.



HOW TOPICS BROUGHT UP IN THE CONSULTATION WERE RESOLVED IN THE FINAL DRAFT

CORE BOUNDARY

Multiple comments suggested changes to the core boundary and requested alignment with other systems

- The Expert Advisory Group discussed alignment with other systems and concluded that as these systems have different purposes, full alignment is neither possible nor desirable.
- No change in the core boundary in the draft guidance except **secondary metallurgy** is added, as it is also a crucial part of the steelmaking process.
- The reason to include **hot rolling** is that:
 - Almost every steel product will go through the steps required to make hot rolled steel and its emissions are substantial.
 - Hot rolling has to be included to make sure the boundary enables consistent treatment of off-gases as fuel in hot rolling stage.
 - The IEA NZE boundary includes hot rolling in the scope 1 emissions.





UPSTREAM METHANE EMISSIONS

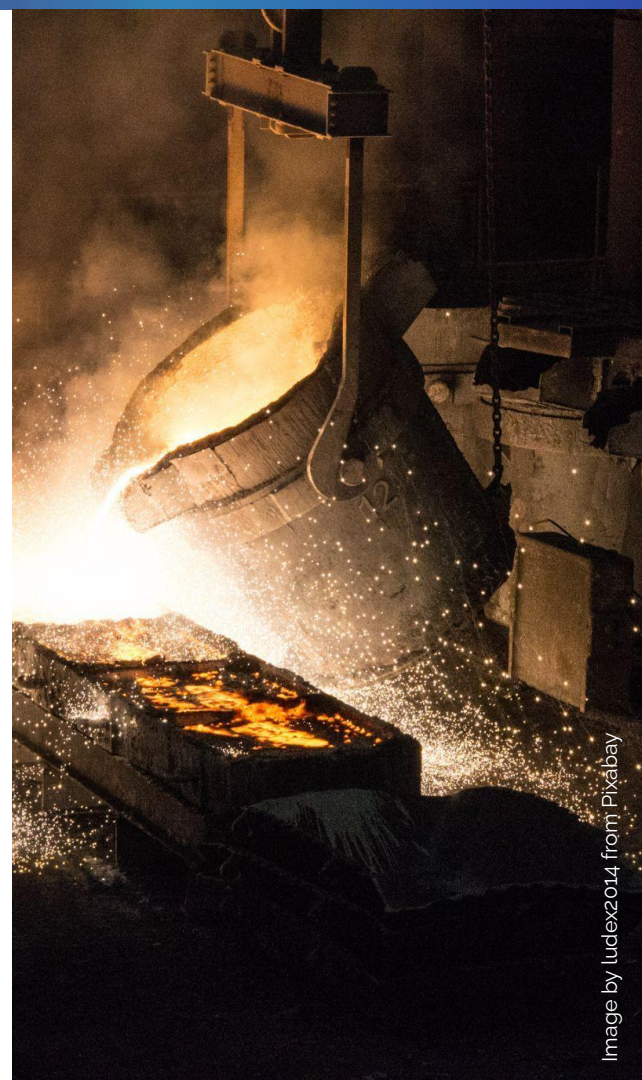
Multiple stakeholders suggested that the requirements on upstream methane emissions should be more ambitious, and that they should be included in the core boundary

- Will not be included in the core boundary but will be captured by a mandatory scope 3 category 3 target requirement.
- As the data availability on upstream methane is not sufficiently robust, it would be risky to adjust the boundary and also the carbon budget to include it - it is preferable to keep it as a separate mandatory target.
- Inclusion of this target may support increased data availability.
- As data on upstream methane emissions will likely improve greatly in the next few years, the steel guidance should be updated within 2 years to review the ambition level.

AMBITION LEVEL OF THE PATHWAY

Opinions differed from “too ambitious” to “too lenient” on the ambition level of the pathway from the public consultation

- The pathways derived from IEA were maintained.
- The science-based target is set for company level, not on a product level. The target depends on various inputs (scrap ratio, base year and target year emissions, company's growth). It is not a static but forward looking target.
- An annex is dedicated to the justification of the pathway in the final guidance.
- While at the same time, different challenges facing the steel sector are also highlighted in the main text.
- The importance of decarbonization in the near-term is emphasized. Companies should provide qualitative evidence on their near-term progress as this will contribute to long-term plans.





SCRAP-INPUT-DEPENDANT PATHWAYS

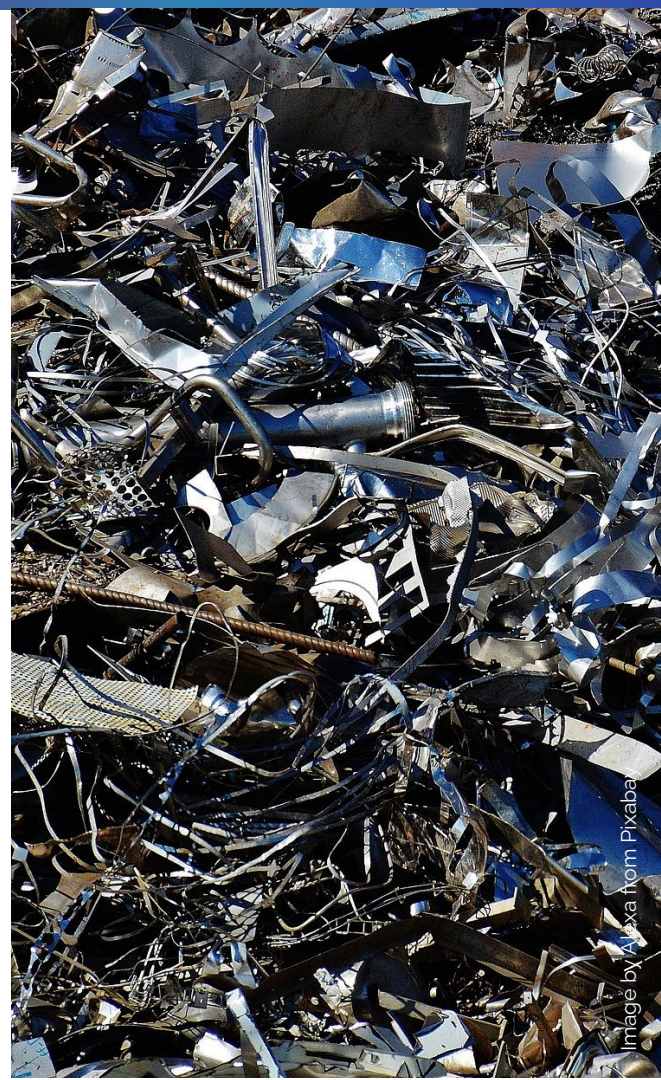
Stakeholders commented on the use of scrap-input-dependent pathways, with many being supportive, but others expressing concerns that use of scrap may not be sufficiently incentivized

- Since the public consultation, the SBTi explored further ways to adjust the calculation to incentivize scrap use while also incentivizing decarbonization of primary production, and concluded that the system proposed sufficiently does both. Therefore, no fundamental change to the calculation was made.
- Analysis shows percentage of reduction is more sensitive on the base year emission than the scrap ratio. Company will have to reduce their process emission and not just by increasing their scrap ratio.

SCRAP DEFINITION AND ITS CALCULATION

Stakeholders asked for further clarity and suggested improvements

- The SBTi made a distinction between internal scrap and home scrap in the revised guidance:
 - Internal scrap – is generated during manufacturing of crude steel. This scrap is most often recycled at the same facility.
 - Home scrap – is generated during rolling and finishing of steel.Internal scrap will not be included in the scrap ratio. Only home scrap, prompt scrap and end-of-life scrap are considered as scrap.
- For **scrap ratio calculation**, only the ferrous metallics should be included. Total iron content of the scrap-based inputs in the numerator; total iron content of the scrap inputs plus the ore-based inputs as the denominator. The yield factors can be used if actual data is not available.
- Target wording on **scrap ratio change**: There has been a split opinion on the disclosure of scrap ratio in the target wording. It was decided to require companies to submit a description of their plan on increasing/decreasing scrap ratio in the target year when they submit their target. Companies are also required to disclose the scrap ratio associated with their target annually starting from the base year, but not disclose scrap ratio projections in the target wording.



OTHER TOPICS (1/2)

Stakeholders suggest ferroalloys production should be included in the boundary or made mandatory in targets

- No change. For upstream ferroalloys production emissions, it is recommended companies set a scope 3 target, regardless of their share of the company's total emissions. The target will cover cradle-to-gate emissions of purchased ferroalloys using any of the relevant scope 3 methods.

Biomass: feedback from the public consultation pointed out biomass needs clarification

- This issue has been solved by adding clarification and making reference to the SBTi general criteria on this, and thus making clear that there are no sector-specific criteria to be applied here.

Requests for emission factors

- It is not the SBTi normal practice to provide emissions factors. We accept emissions factors from reputable sources.

Applicability of the guidance and tool for steel producers and supply chain

- Worked examples for iron/steel producers (integrated or at various stages of production) and their upstream and downstream supply chains are provided on [the steel webpage](#).



OTHER TOPICS (2/2)

By-products: stakeholders suggested credits should be given for sold by-products

- No change. The SBTi follows the GHG Protocol with regard to avoided emissions.

CCU & CCS: stakeholders asked for clarity on how these are taken into account

- No change. As this is not a sector-specific topic, no further detail is given in the SBTi Steel Guidance.

Regional difference: stakeholders suggested regional differences should be taken into account

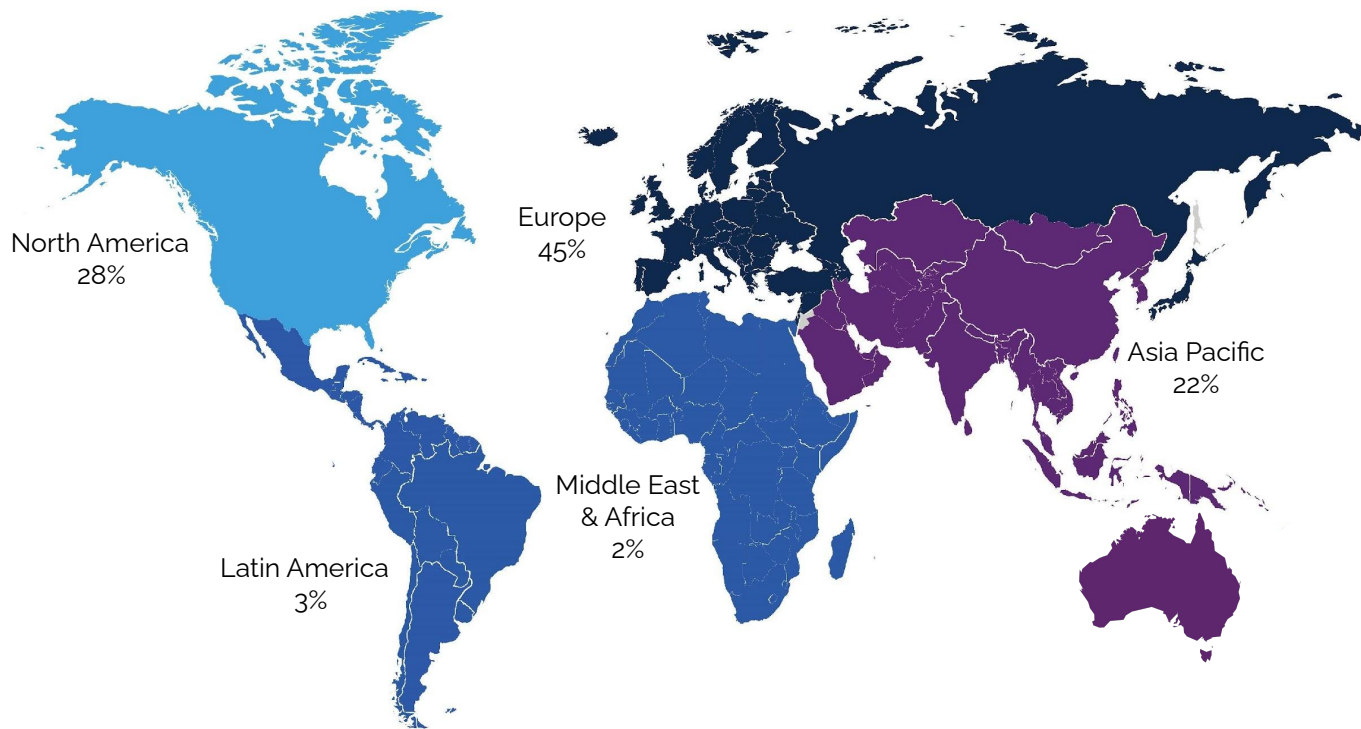
- No change. For industrial sectors where the intensity-based SDA is used, regional pathways are not usually justified as technologies should converge, and the method takes into account a company's starting point. In parallel, the SBTi research team is investigating the topic from a cross-sector perspective and therefore the SBTi Steel Guidance does not deal further with this topic.



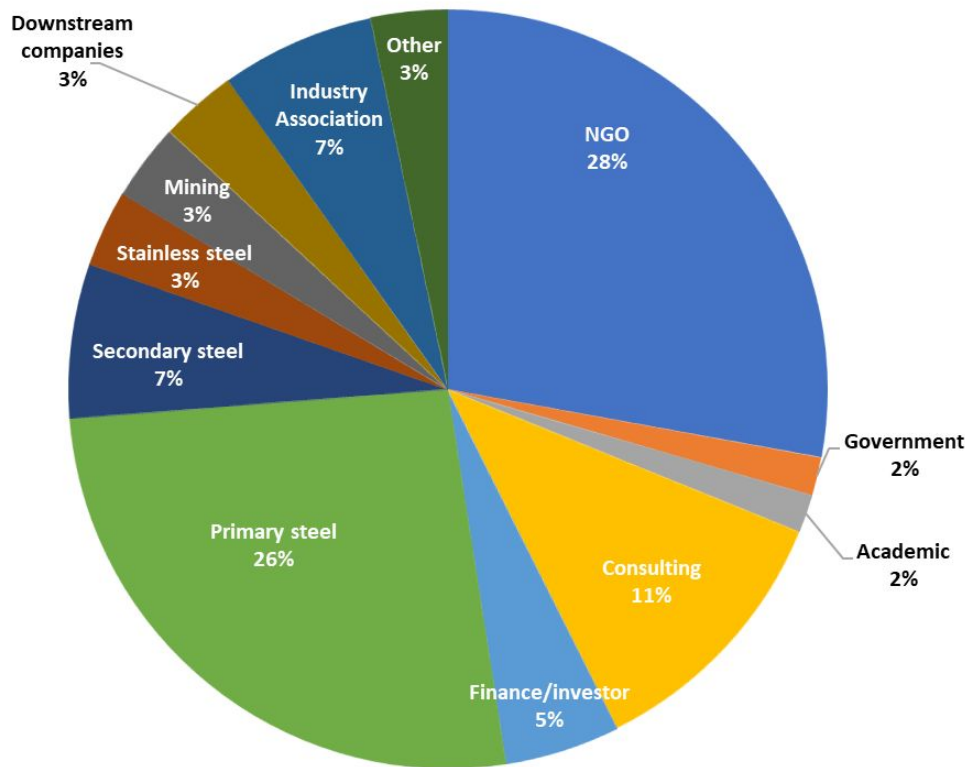


FULL CONSULTATION RESPONSES

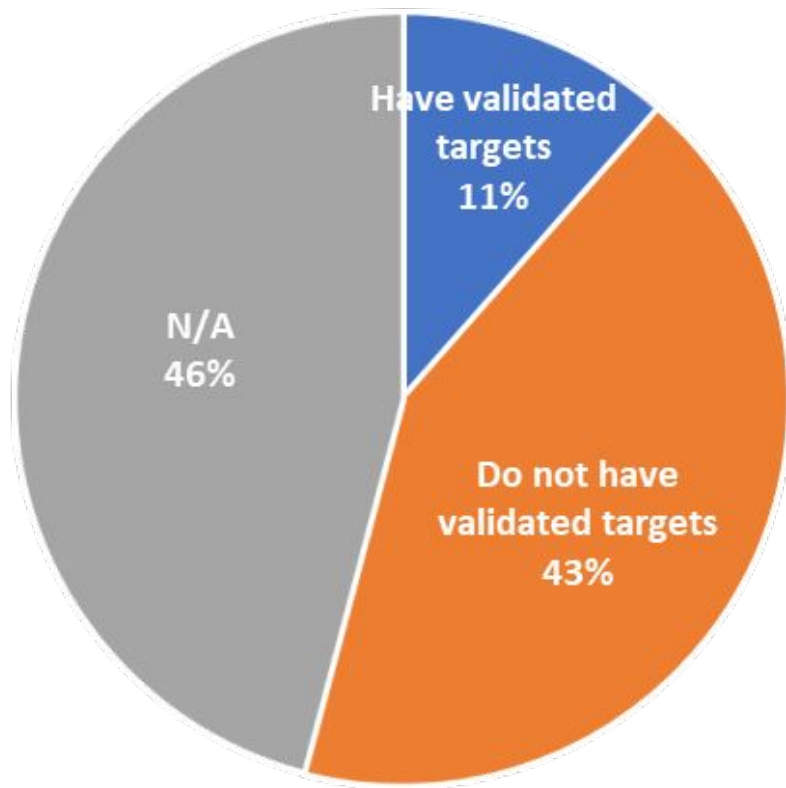
WHERE IS YOUR ORGANIZATION HEADQUARTERED?



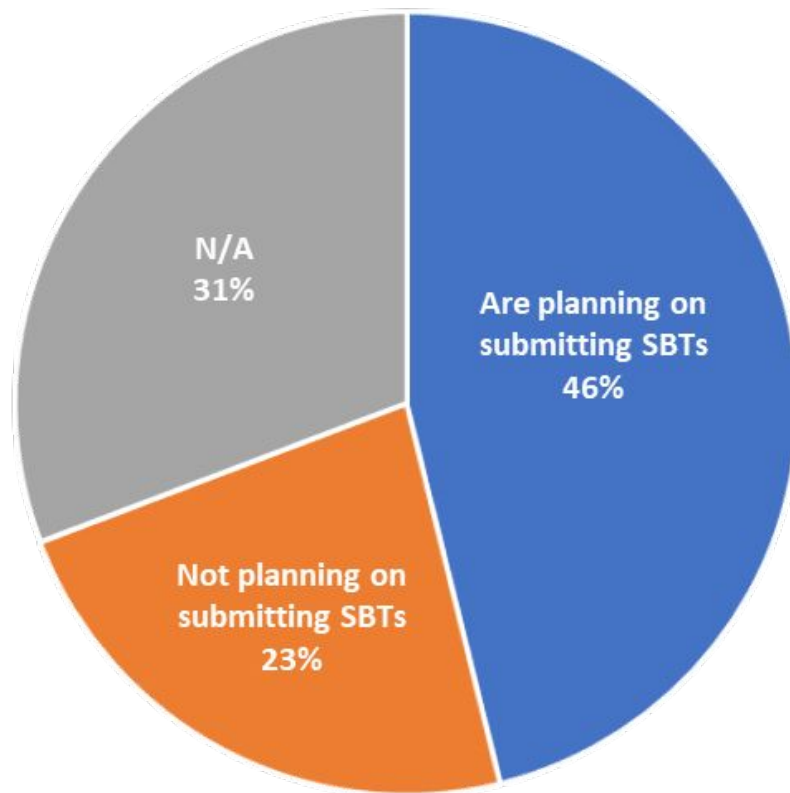
SELECT THE ORGANIZATION TYPE THAT BEST DESCRIBES YOUR ORGANIZATION



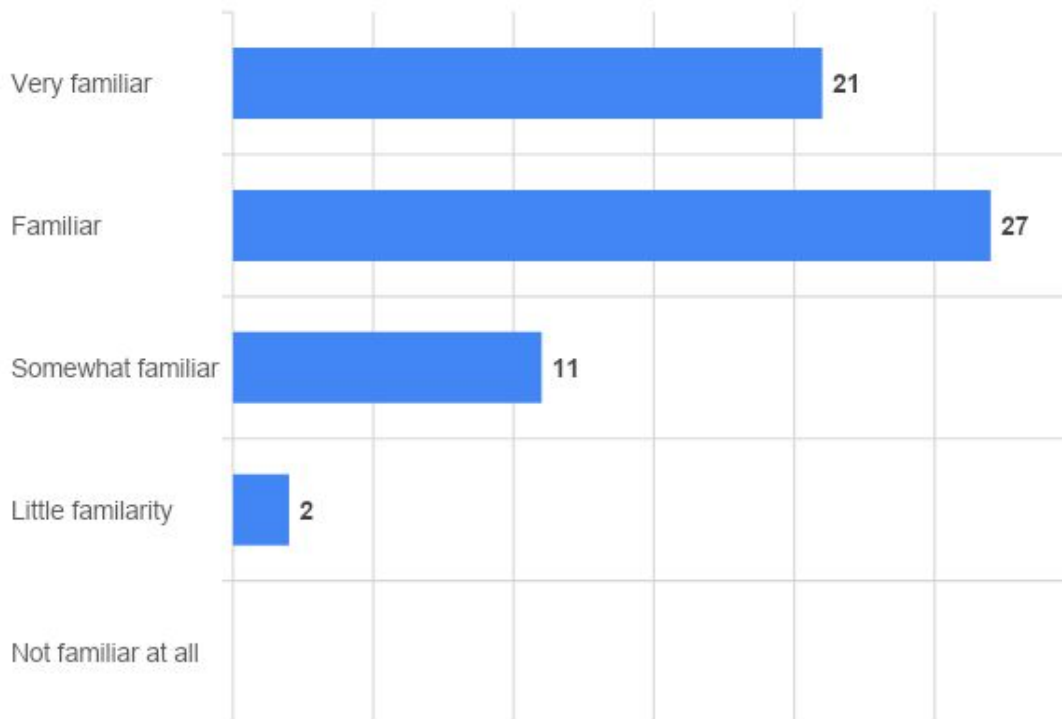
DO YOU ALREADY HAVE VALIDATED SCIENCE-BASED TARGETS?



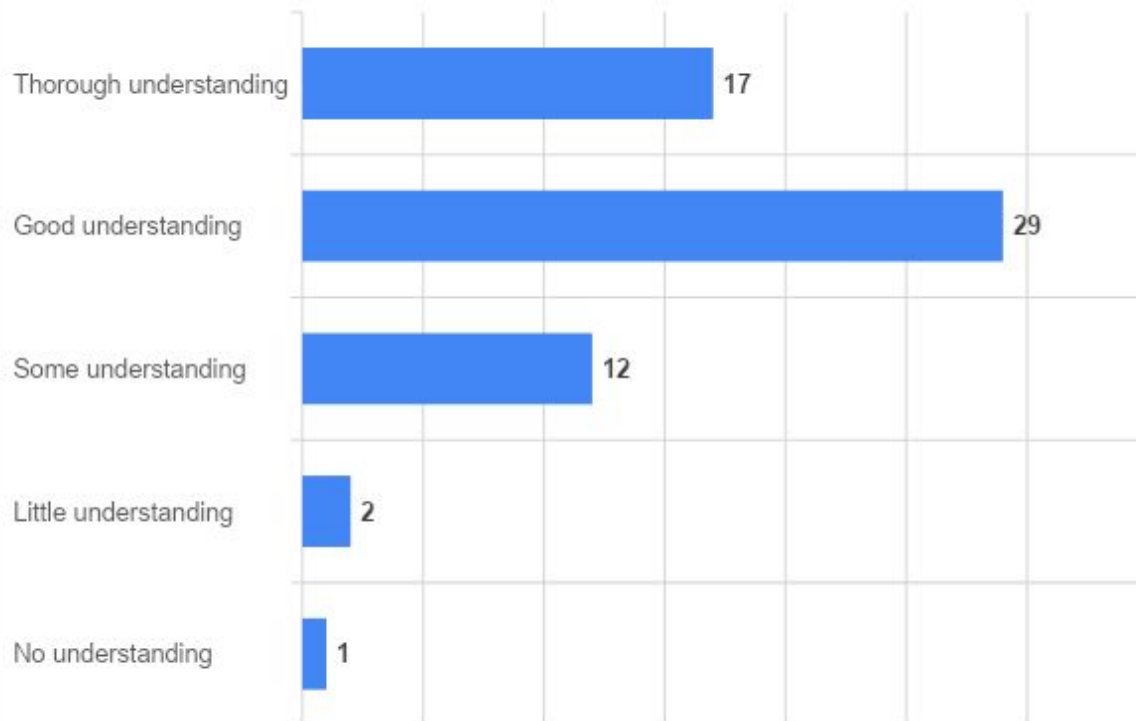
IF YOU DO NOT HAVE VALIDATED SCIENCE-BASED TARGETS CURRENTLY, DO YOU PLAN ON SUBMITTING TARGETS FOR VALIDATION?



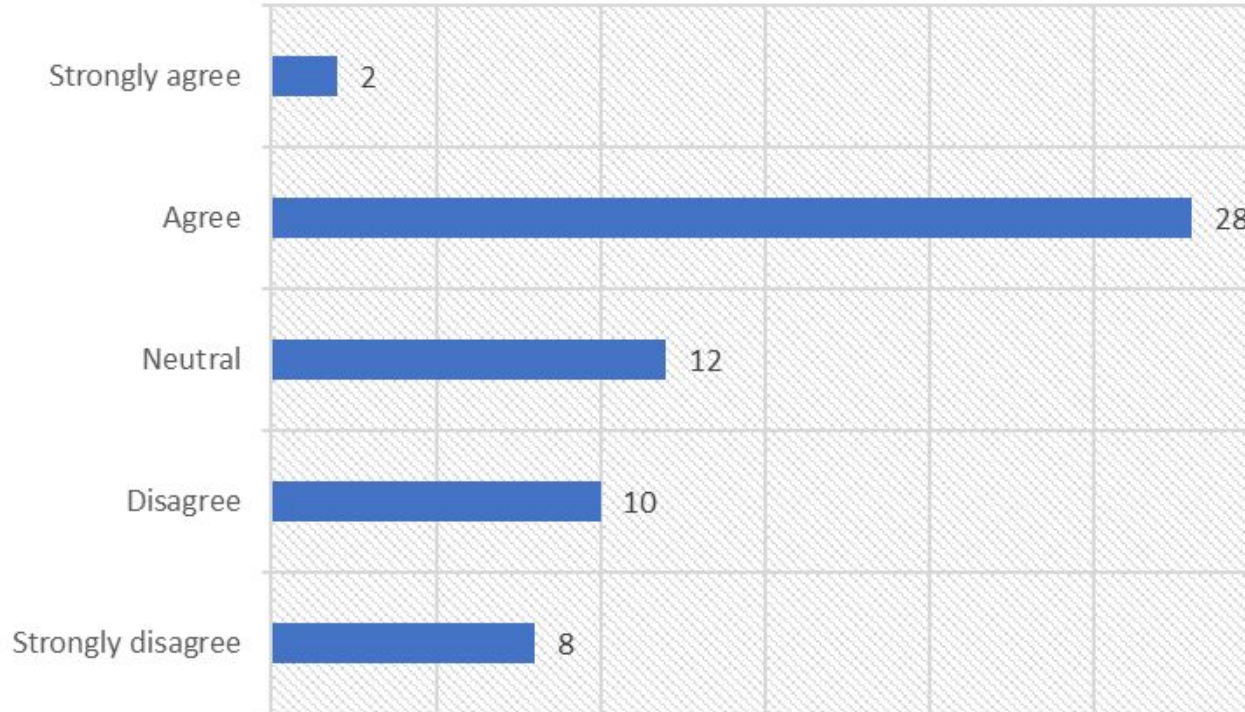
HOW FAMILIAR ARE YOU WITH THE OVERALL CONCEPTS OF SCIENCE-BASED TARGET-SETTING AND OTHER SBTi RESOURCES?



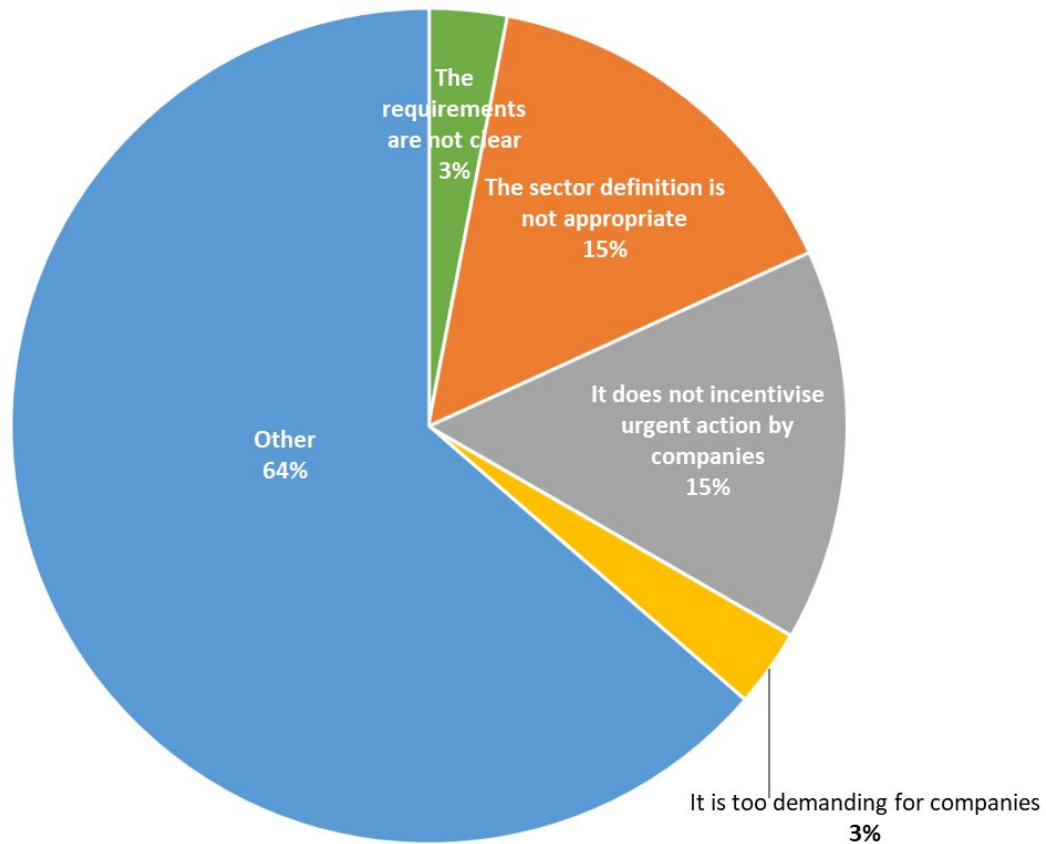
DO YOU UNDERSTAND THE SECTORAL DECARBONIZATION APPROACH (SDA) AND HOW IT WOULD APPLY TO YOUR ORGANIZATION?



THE SCOPE AND APPLICABILITY OF THE PROPOSED TARGET-SETTING APPROACH FOR THE STEEL SECTOR IS CLEAR AND REASONABLE. TO WHAT EXTENT DO YOU AGREE?



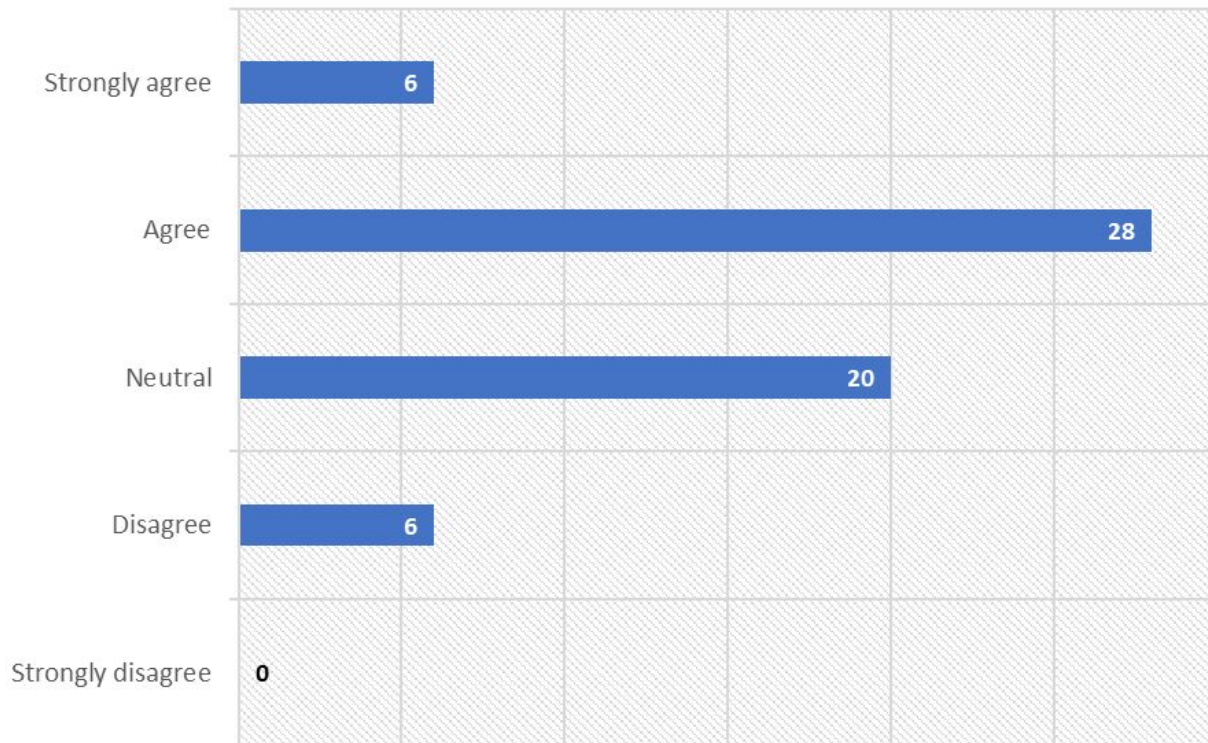
IF YOU DISAGREE, WHY?



'OTHER' COMMENTS (SUMMARY)

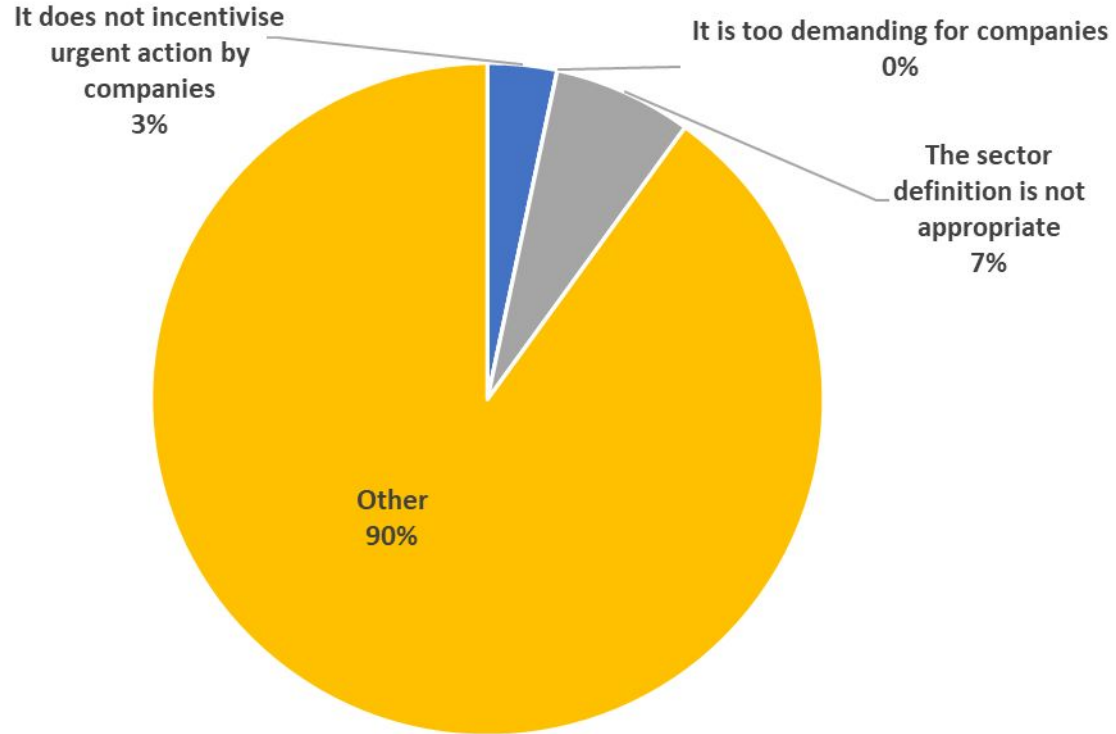
- Incentives should be introduced to encourage manufacturers that produce ore-based steel to shift production to a scrap basis.
- The sliding scale does not incentivize urgent action by ore-based producers and is unnecessarily too demanding for scrap-based producers.
- A notion of scrap scarcity is not supported by the facts.
- Need consideration of differing regional contexts, otherwise it renders very limited applicability in certain regions of the world.
- Regional policies should be taken into account, e.g. steelmakers in countries that do not have 2050 net-zero targets, e.g. China in 2060 and India in 2070.
- Linking company production growth to target ambition will create perverse incentives for steelmakers.
- Emissions from coal mining, coal mine methane, extraction (and transport) of natural gas and petroleum products, as well as production of biomass and biogas should be included inside the boundary.
- Treatment of by-products and process gases should be recognized and secondary metallurgy should be included in the boundary.
- Need clarification on scrap definition.

DO YOU AGREE WITH THE CHOICE OF IEA NET ZERO REPORT AS THE SOURCE OF 1.5°C PATHWAYS FOR STEEL?



[IEA NZE](#)

IF YOU DISAGREE, WHY?



'OTHER' RESPONSES (1/2)

Approach

- IEA follows a top down approach that neither considers the technical possibilities nor other sustainability effects.
- It is necessary to understand how the IEA NZ report, that only considers, in principle, CO₂ emissions (and no other GHG emissions) can ensure the level of global warming to be reached by a certain pathway.
- The IEA NZE scenario relies almost entirely on the energy system to achieve emissions reductions, with minimal use of land-based biological carbon dioxide removals (CDR), unlike many other IPCC scenarios relying on land and technology-based carbon removals to reduce emissions at a more gradual pace. And in certain regards, NZE is an outlier compared to many IPCC scenarios.
- The IEA report itself projects different growth scenario and pathways for developed economies and emerging economies but no such regionalization given in the SBTi approach.

Carbon budget

- The level of carbon budget allocated to heavy emitting sectors (such as steel and cement) is not appropriate given that the technology (and associated OEM manufacturing capacity and energy infrastructure) will not be able to facilitate the transformation at the scale required by 2030.

'OTHER' RESPONSES (2/2)

Ambition

- It is too demanding for companies given the current state of technology and advancements in decarbonization technology.
- The pace emissions reductions before 2030 in this model appears under-ambitious in comparison with other models. We suggest articulating further in the guidance the rationale for the pace of change (e.g. to take into account China/India who will be slower at transitioning, as many of their steel plants are new), and reviewing the pace of change annually to assess whether this is what's required and/or aligns with the IEA model.

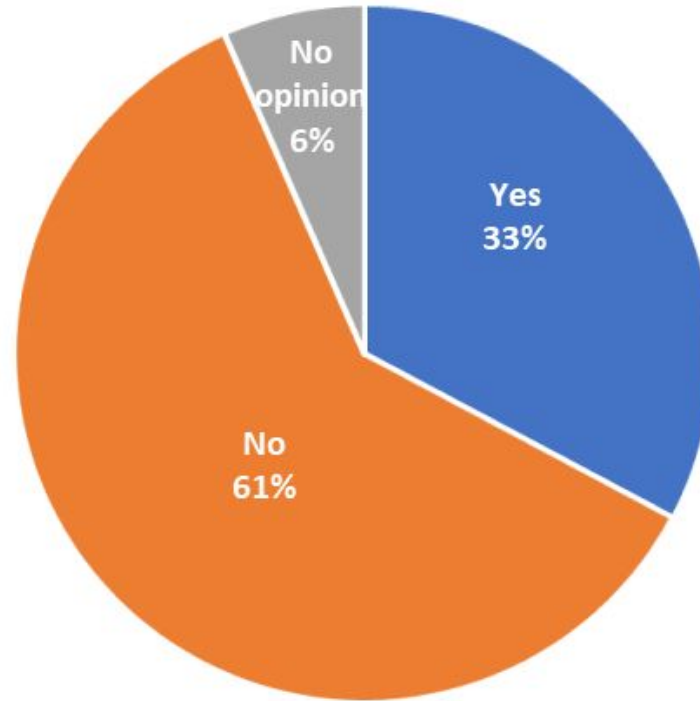
Technology

- Other important topics e.g. high dependence on public policies for transition, scrap and CCU/CCUS, and regionalization topic for countries outside the G7 were not taken into consideration in the SBTi approach.
- Given that CCU is not allowed and the targets are rather ambitious, targets that are set for 2030 could be perceived as greenwashing if they cannot be achieved.

Suggestions

- We encourage the SBTi to work with the IEA and MPP to encourage them to work together to establish a single set of assumptions for the steel industry's decarbonisation trajectory.
- Would like reassurance that the SBTi can plan to update targets/approach if IEA or other organizations develop better standards.

DO THE GUIDANCE AND PATHWAY CHOSEN SUFFICIENTLY INCENTIVISE NEAR-TERM EMISSIONS REDUCTIONS IN THE STEEL INDUSTRY?



PLEASE BRIEFLY EXPLAIN YOUR ANSWER TO THE PREVIOUS QUESTION (1/2)

Ambition level

- It will slow the decarbonization of the entire sector by disincentivizing scrap use. 70% of the global steel sector which is currently ore-based production could have a more lenient pathway in the near-term if they choose to reduce scrap use (in target year vs. base year).
- The emissions reductions of the steel sector in the short-term (until 2030) are significantly lower than the IPCC AR6 WGI recommendation (at least 43 % by 2030 relative to 2019) for all global emissions and the generic SBTi contraction pathway.
- It needs to be verified whether the near-term targets are achievable. The idea that allowing and encouraging scrap would disincentivize development of other technologies is not true and many mechanisms are already in place to continue to foster the development of breakthrough technologies.

Carbon budget

- It is realistic with 1.5°C budget, but question on the financing of such huge project.
- Carbon budget needs to stress tested by a bottom up approach of how the pathway can be met.

Scrap incentivization

- Opens a loophole to allow companies simply to state % of scrap [increase] without doing so.
- Increasing scrap use for primary steel making companies should be incentivized more.

PLEASE BRIEFLY EXPLAIN YOUR ANSWER TO THE PREVIOUS QUESTION (2/2)

- Insufficient domestic supply of scrap to meet the growth in steel demand in emerging economies in the near-term with its relatively young stock of steel infrastructure, buildings and goods. The steep near-term target for primary steel makers till 2030 (remaining 7 years) will not be achieved using the existing levers of efficiency improvements. Breakthrough technologies is expected to scale up only post 2030.
- Scrap has been considered as BAU (business as usual) in the SBTi methodology, it is not considered as a solution for decarbonization, which goes against IEA's consideration. This approach doesn't generate incentive for its use.

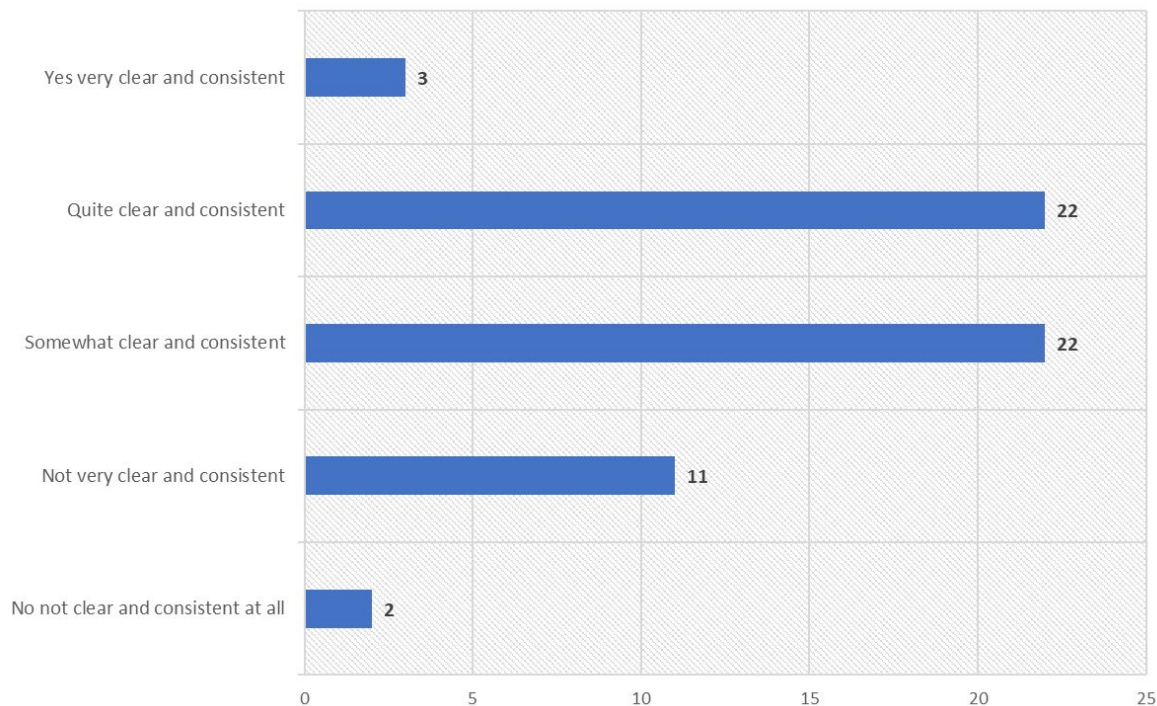
Boundary

- The focus on hot metal and crude steel production leaves out all options downstream of the crude steel production and motivates to move activities and emissions outside the system boundaries.
- I think the sliding scale is a smart approach, but the decision to exclude fossil fuel and raw materials extraction emissions will leave a big piece of steel's carbon footprint unreported and unaccounted for.
- By not incorporating accounting rules that reward the additional GHG savings from electricity generation from process gases, or the production of co products from process gas via CCU technologies, the SBTi will fail to incentivize the steel industry to undertake such projects which deliver net added value in terms of GHG savings to the system as a whole.

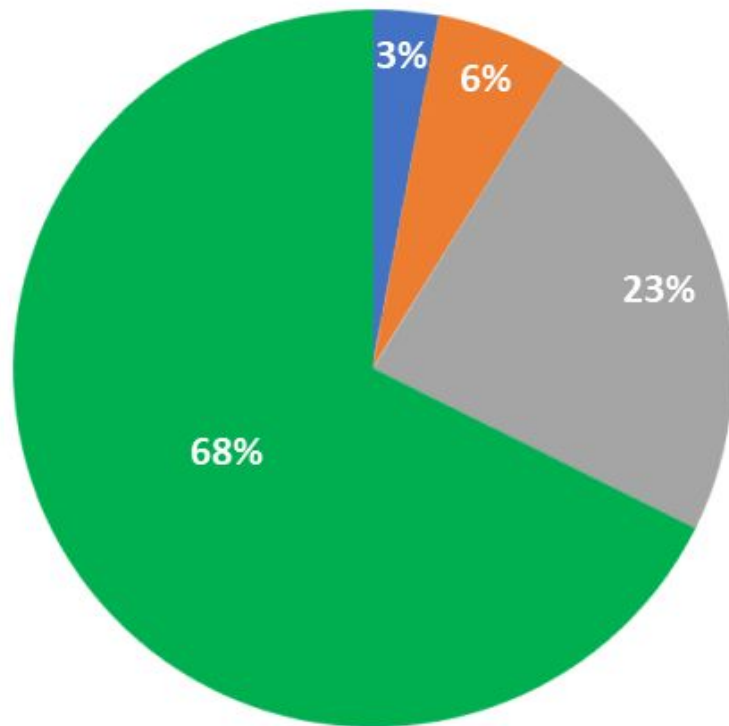
Technology

- Steel industry needs to have CCU accepted to be able to follow the net-zero target.
- The guideline have no concrete suggestion on the application of cost analysis of technology such as CCUS and hydrogen usage in different regions, which leads to the target and carbon budget not reasonable enough.
- The steel sector guidance should be more explicit in stating that all investments even in the short-term must be in line with the emissions reductions pathway of the 2030s.

THE GUIDANCE DOCUMENT PROVIDES CRITERIA FOR GHG ACCOUNTING IN ADDITION TO THOSE PROVIDED BY THE GHG PROTOCOL AND THE SBTi GENERAL CRITERIA THAT ARE SPECIFIC TO THIS SECTOR. ARE THESE CLEAR AND CONSISTENT IN YOUR VIEW?



IF YOU DO NOT THINK THE ABOVE IS CLEAR AND CONSISTENT, WHY?



- They introduce requirements that are not in line with the GHG Protocol
- They introduce requirements that are not in line with industry practice
- Further industry-specific accounting criteria are needed
- Other

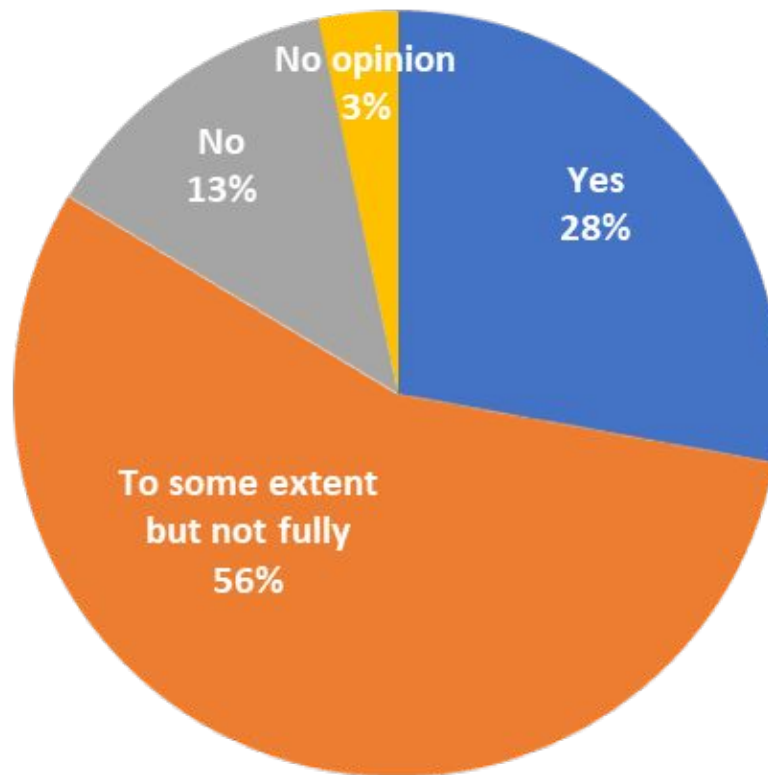
'OTHER' RESPONSES (1/2)

- It is not clear with which emission factors scope 3.1, 3.3 and 3.4 shall be calculated plus what quality standards shall apply to primary third-party emissions data.
- They are somewhat clear, but interplay between the SBTi general criteria and the steel SDA is challenging, in particular the mandatory requirements on scope 3.
- Suggest that the requirement for targets for all scope 3 emissions, if the 40% threshold is triggered, should be removed, and focus remain on the steel SDA boundaries.
- Clearer alignment with ResponsibleSteel, which represents 13% of global steelmaking.
- It should be possible to credit by-products (e.g. off-gases and electricity) when used in downstream processes outside of the core steel boundary. Failure to do so penalizes integrated sites which are optimized for the entire site as opposed to single entities or a particular boundary.
- It should be possible to credit intermediate products when exported outside of the core steel boundary (e.g. coke, crude steel). Failure to do so gives a distorted picture of carbon intensity and means targets could be met by reducing volumes of intermediate products being sold.

'OTHER' RESPONSES (2/2)

- Rules for the accounting of CCU must be clarified. Some credit should be given to the emission savings resulting from CCU measures (e.g. system expansion method under GHG Protocol for product accounting).
- Explicit guidance and examples for how this standard applies in practice to two types of companies:
 - Steel companies that purchase biomass/charcoal from other producers; and
 - Those who grow their own wood on dedicated plantations (the latter may have a claim to count sequestered emissions against combustion emissions as they had agency in growing it, the former doesn't).
- The guidance as drafted is overly complicated and does not allow for transparency. A simple, transparent, easy to understand standard will drive meaningful change and allow all to hold our industry accountable for results.

DO YOU AGREE WITH THE CORE IRON & STEEL BOUNDARY?

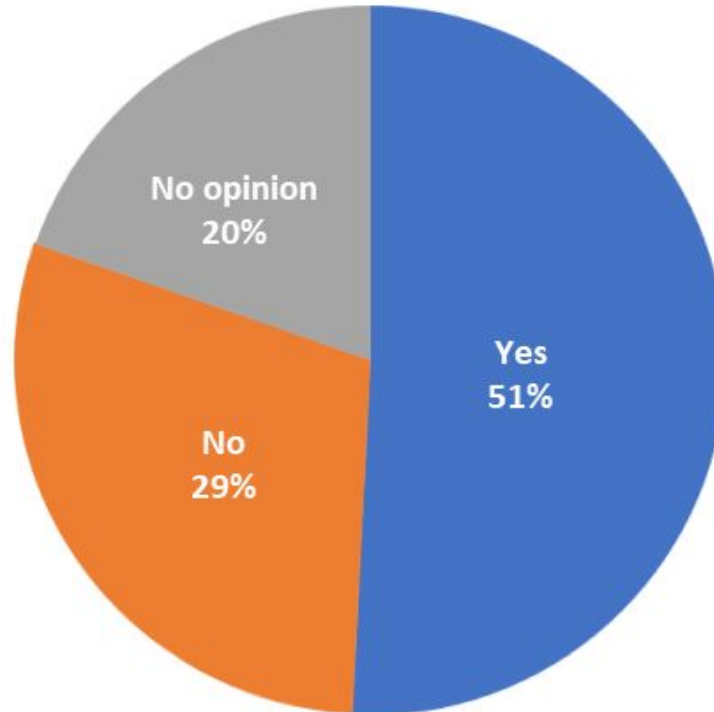


IF YOU DISAGREE, WHY?

- Secondary metallurgy should be included in the SDA, as this stage is in the core boundary inside steelmaking.
- Should include fugitive emissions from coal mines and natural gas, The SBTi should make a first assessment of data availability if coal mining inclusion in the boundary no later than two years from the publication of the sector guidance.
- Should include emission from ferroalloys, production of biomass and biogas, and adding the export of excess heat to the scope.
- Clarification if coke making includes the production of biocoke.
- Agreed that no credits for exported off-gases nor surplus power exported in the downstream chain. The amount of off-gases in the steel making process should be reduced.



DO YOU AGREE THAT THE CARBON INTENSITY SHOULD BE ON THE BASIS OF EMISSION PER UNIT OF HOT ROLLED STEEL (AS OPPOSED TO CRUDE STEEL, OR COLD ROLLED STEEL)?





IF YOU DISAGREE, WHY? (1/2)

Should be based on crude steel

- Base on the mass of crude steel produced would provide consistency for all producers and ensure comparability, but hot rolled steel could also be used assuming any inventory volumes are included.

Support on hot rolled steel, but

- Strongly encourage the convergence of the scope and system boundary definitions across other standards and initiatives to avoid confusion.
- Suggest monitoring progress specifically against the hot rolling process and the whole scope, and using this to inform an annual review of the inclusion of hot rolling.

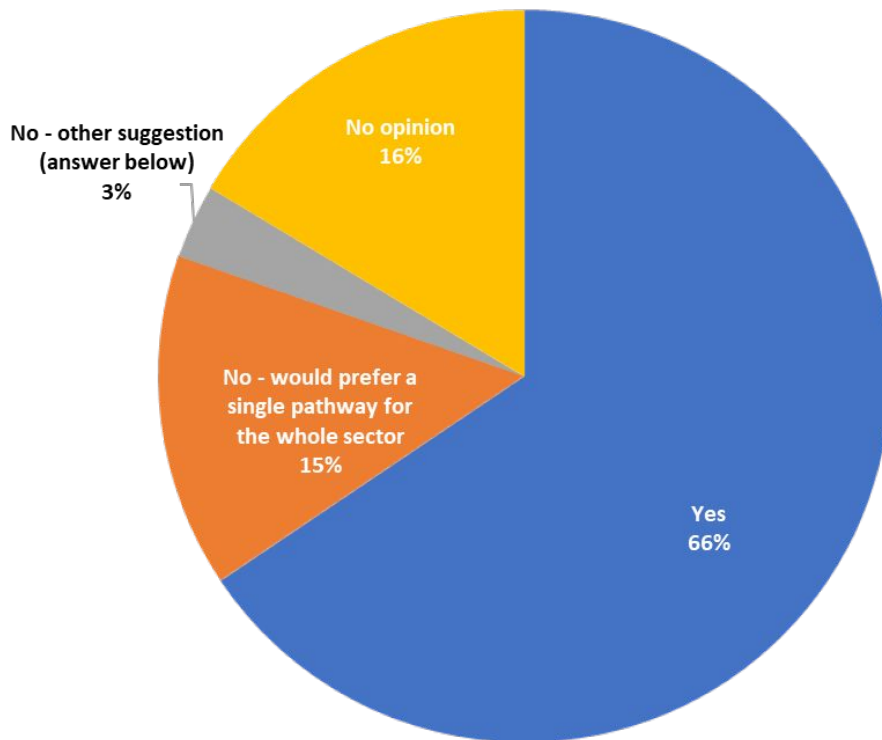


IF YOU DISAGREE, WHY? (2/2)

Other reasons

- With the current definition, there is no incentive for steel companies or their suppliers to decarbonize the production steps of cold rolling or galvanizing.
- “Hot rolled steel” suggests that a finished product (rebar, merchant bar, wire rod, beams) for long products whereas billets and blooms are frequently traded between companies likely obscuring the ability to use primary data all the way to hot rolled steel stage.

DO YOU AGREE WITH THE USE OF A SCRAP-INPUT-DEPENDENT PATHWAY, WHERE THE 1.5°C DECARBONIZATION PATHWAY RELEVANT FOR A COMPANY DEPENDS ON THE COMPANY'S SCRAP RATIO AND HOW THIS CHANGES OVER TIME?



IF YOU DISAGREE, WHY?

Agree with scrap-input-dependent pathway, but

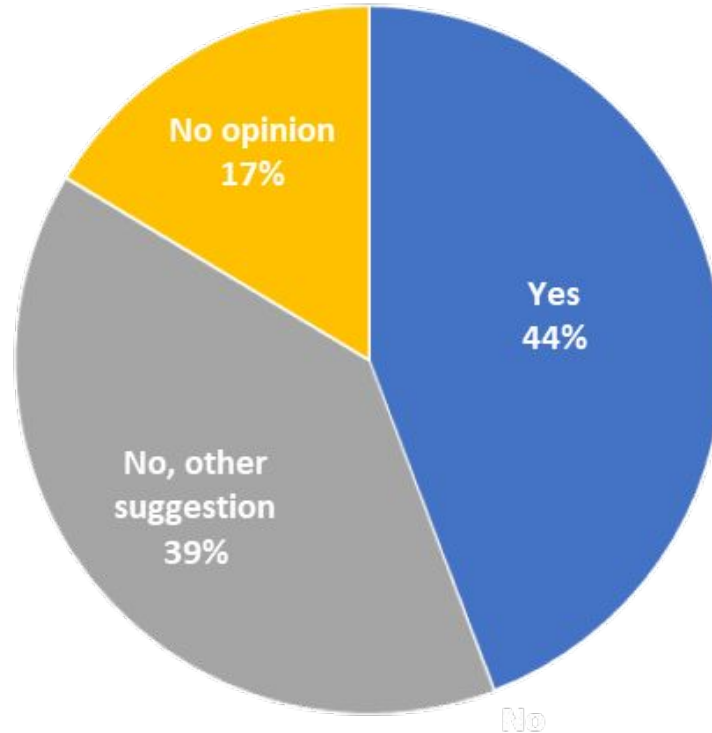
- More clarity is needed for the different types of scrap to ensure that true recycling and material efficiency are encouraged

Other reasons to disagree

- The market will not distinguish production methodology for identical products made on different processes. Thereby eliminating any ability for the market to drive decarbonization and/or innovation.



IN THE DRAFT GUIDANCE, ALL SCRAP ENTERING THE MELT SHOP (INCLUDING HOME SCRAP AND EXTERNALLY PURCHASED SCRAP) IS CONSIDERED IN THE SCRAP RATIO. DO YOU AGREE WITH HOW THE SCRAP RATIO IS DETERMINED?



IF YOU DISAGREE, WHY?

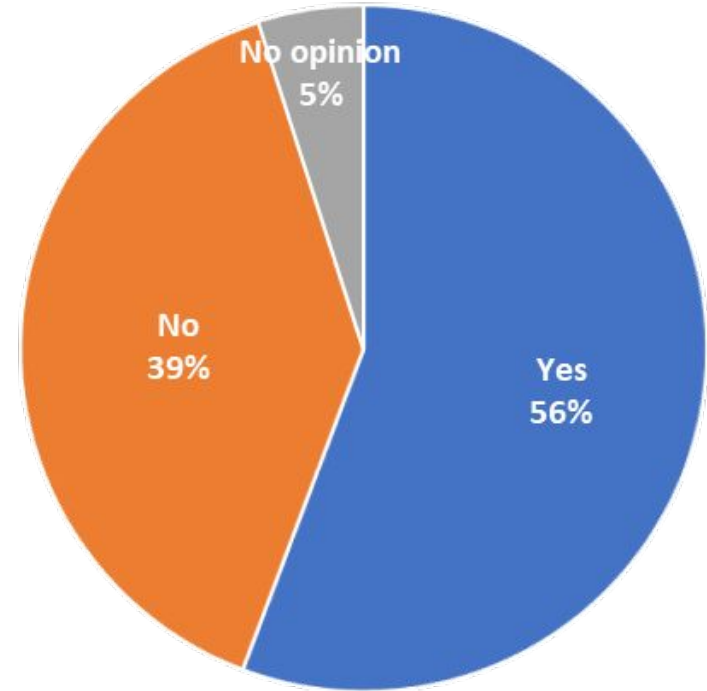
- Home scrap is the result of internal inefficiencies and should not be rewarded. Limit scrap to externally purchased scrap.
- Transparency concerning company-internal material flows might be a problem if home scrap is included. It is likely to lead to misaligned incentives.
- We recommend the denominator is total metallics input rather than mass of steel produced. Due to yield loss, the proportion of scrap can be greater than 100% if the denominator is per tonne of steel.
- Alignment with other global standards. ResponsibleSteel also includes non-ferrous metal scrap used as an input in its determination of scrap input.
- Scrap transferred by a steel company from one location to another location should be considered as external purchased scrap ONLY if the scrap came from a different steelmaking facility.
- Scrap ratio is known and weighed per charge so should be reported as they do with coal, ore (including quality), ore pellets, alloys, limestone, oxygen, nitrogen, argon, ferroalloys, electricity, natural gas, slag, any other iron units.



CURRENTLY, SCOPE 3 TARGETS ARE ONLY REQUIRED FOR NEAR-TERM TARGETS WHEN SCOPE 3 EMISSIONS MAKE UP MORE THAN 40% OF SCOPE 1, 2 AND 3. TO

- HARMONIZE WITH OTHER SECTORS (E.G. TRANSPORT, WHICH USES A WELL-TO-WHEEL APPROACH), &
- ENSURE SIGNIFICANT FOCUS IS PUT ON METHANE EMISSIONS FROM FOSSIL FUEL EXTRACTION,

THIS GUIDANCE INTRODUCES MANDATORY NEAR-TERM SCOPE 3 TARGETS COVERING UPSTREAM FUEL AND ENERGY-RELATED EMISSIONS. DO YOU AGREE WITH THIS APPROACH?



IF YOU DISAGREE, WHY? (1/3)

- Should focus on scope 3 emissions associated with feedstock/reductants (e.g. methane from met coal and natural gas extraction and processing (inc. hydrogen produced from steam methane reforming). It should not focus on all scope 3 emissions related to energy losses (e.g. transmission and distribution losses in electricity grids).
- Instead of energy scope 3 we wanted to have the burnt lime and burnt dolomite mandatory included in the boundary. These are scope 3 emission with known emissions and relevant for all steel plants.
- Hydrogen leakage and venting should be included in the inventory.
- We would suggest including mandatory scope 3 for now and then conduct an annual review of the guidance in light of this question.



IF YOU DISAGREE, WHY? (2/3)

Data challenge

- Large data uncertainty around upstream fossil fuel-related emissions, and a mandatory Scope 3 target would be very challenging to determine baseline and track progress.
- A request for SBTi to suggest datasets for emission factors to be used given the challenge obtaining upstream emission data.
- Provide detailed guidance regarding the use of secondary data.

Ambition level

- In principle the approach is very ambitious and it promotes decarbonization in the entire value chain. Our concern is that companies might have no influence over this step if they use grid supply.
- The exclusion of methane emissions from met coal or natural gas extraction from the core SDA misses the opportunity to incentivise steelmakers working closely with met coal suppliers to decarbonise GHGs from these activities.



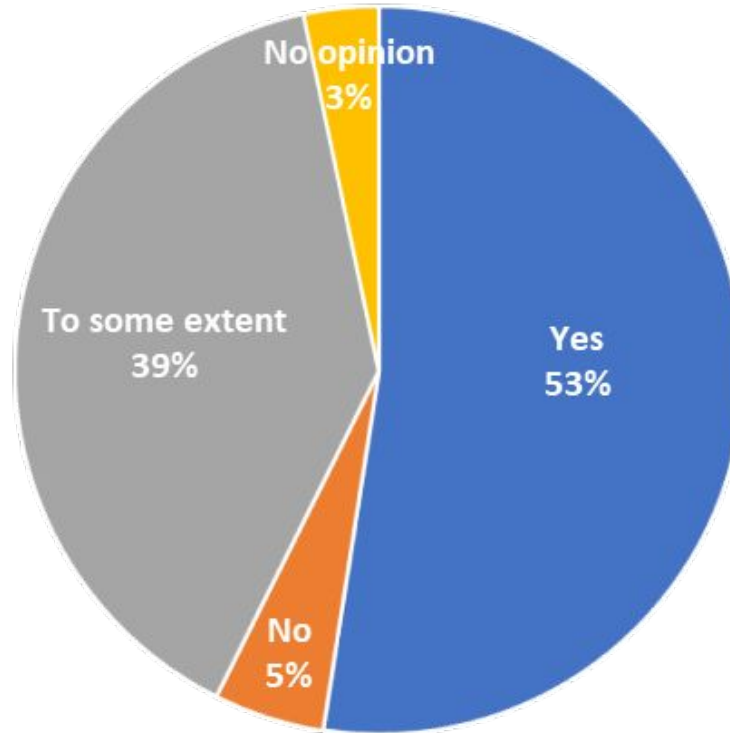
IF YOU DISAGREE, WHY? (3/3)

Suggestions

- Suggest the SBTi to develop a sectoral approach for natural gas and other fossil fuel providers, thereby making that sector responsible for greening themselves over time.
- SBTi commitment to extending the core SDA boundary further in the future to include the upstream methane emissions relating to the extraction and processing of fossil fuels.



THIS GUIDANCE INTRODUCES A REQUIREMENT FOR INCLUDING AT LEAST 95% OF SUPPLIERS' EMISSIONS FOR PURCHASED INTERMEDIATE PRODUCTS FALLING WITHIN THE CORE IRON & STEEL SDA BOUNDARY. DO YOU AGREE WITH THIS?



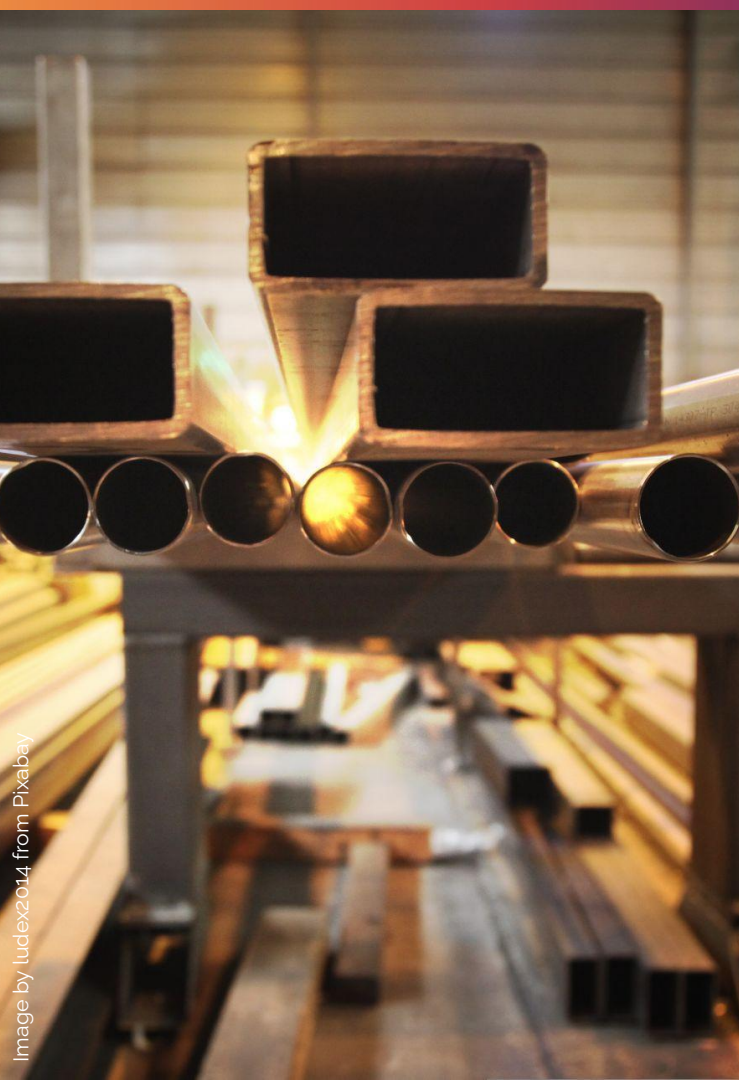


Image by Iudex2014 from Pixabay

PLEASE EXPLAIN YOUR ANSWER FURTHER (SUMMARY)

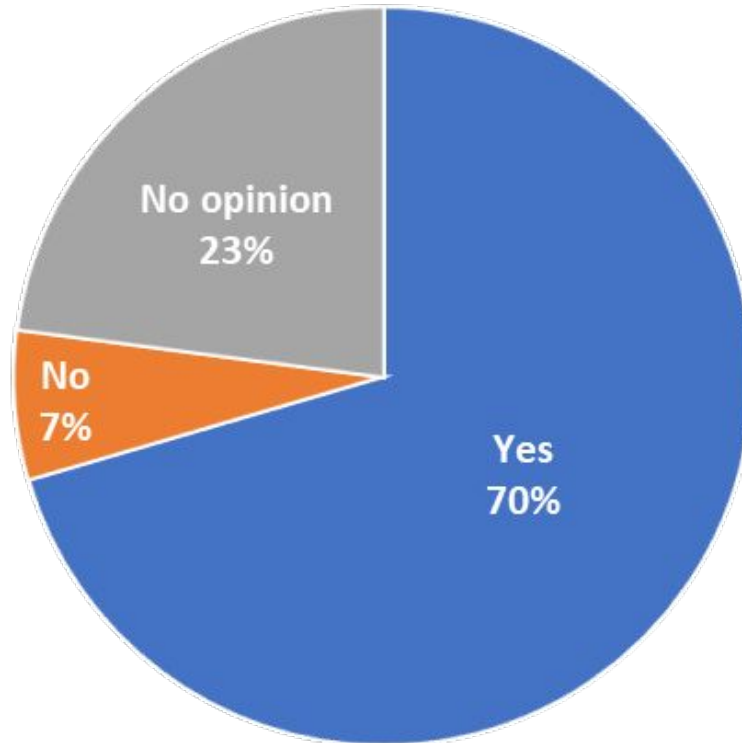
Agree

- In line with our preference for the approach of ISO 14068, we advocate to include 95% of all scope 1+2+3 emissions.
- We recommend 95% at the start of SBTi increasing to 99% over the next 5 years as data tracking improves.
- Could also be 100%. The emission intensity of all purchased inputs must be included.
- The 95% threshold needs justification. Analyze if the 95% threshold sufficiently covers the emissions from the iron & steel sector.

Disagree

- It is right to include a high level of suppliers emissions, but the minimum could be 90 % if sufficiently verified.
- The ratio of 95% would be too high in practice for the value chain of some steel companies in many countries. They have many small and medium size suppliers who have no concept about the auditing of carbon emission.
- We agree with scope leakage, but including e.g. 'HBI' in the boundary, will confuse stakeholders because CO2 emission calculation is different from other net zero standards.

HIGH-ALLOY STEEL PRODUCERS MAY USE THE STEEL PATHWAYS FOR THEIR STEEL PRODUCTION AND MUST USE GENERIC METHODS FOR FERROALLOY PRODUCTION (EITHER SCOPE 1 OR 3). DO YOU AGREE WITH THIS APPROACH?



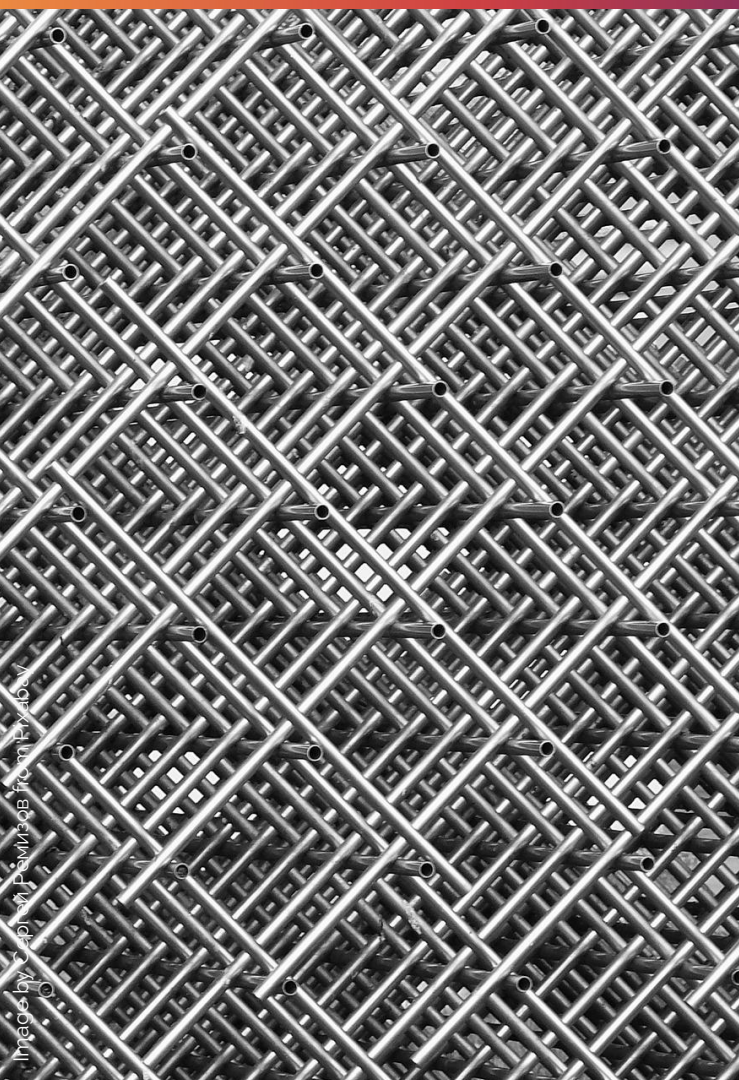


Image by Captain Pamirov from Freepress

PLEASE EXPLAIN YOUR ANSWER FURTHER (SUMMARY)

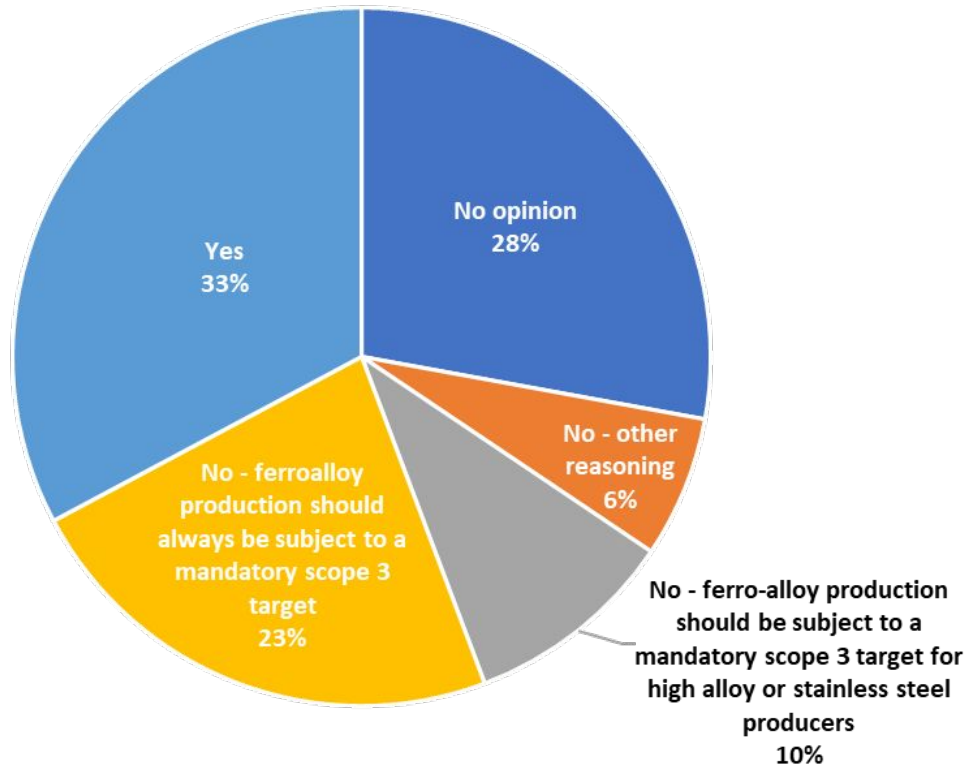
Disagree

- Generic method not useful, needs a sector specific one.
- Ferroalloys also cover other GHG emissions and inputs and are not directly comparable to carbon steel.
- The generic pathway will apply for them as the process is similar - the targets for ferro-alloys need to be set up differently from steel because of different technology.

Agree but

- This is appropriate until greater work can be completed on ferroalloy emission reduction pathways. SBTi should make a public commitment to update the sector guidance with more detail in the future.
- Propose to ensure that this is done while discussing with other initiatives working on the same topic as well as the steel and alloys sectors.
- Given the large contribution of ferroalloys production on the carbon footprint of high-alloy steel. We believe that the current guidance should be used by high-alloy steel producer only when the production of ferroalloys is included in the boundaries.

IN THE DRAFT GUIDANCE, FERROALLOY PRODUCTION WHICH OCCURS UPSTREAM OF THE COMPANY IS NOT MANDATORY TO BE COVERED BY TARGETS, UNLESS THIS IS SIGNIFICANT ENOUGH THAT SCOPE 3 IS OVER 40% OF SCOPE 1, 2 AND 3 EMISSIONS. DO YOU AGREE WITH THIS APPROACH?

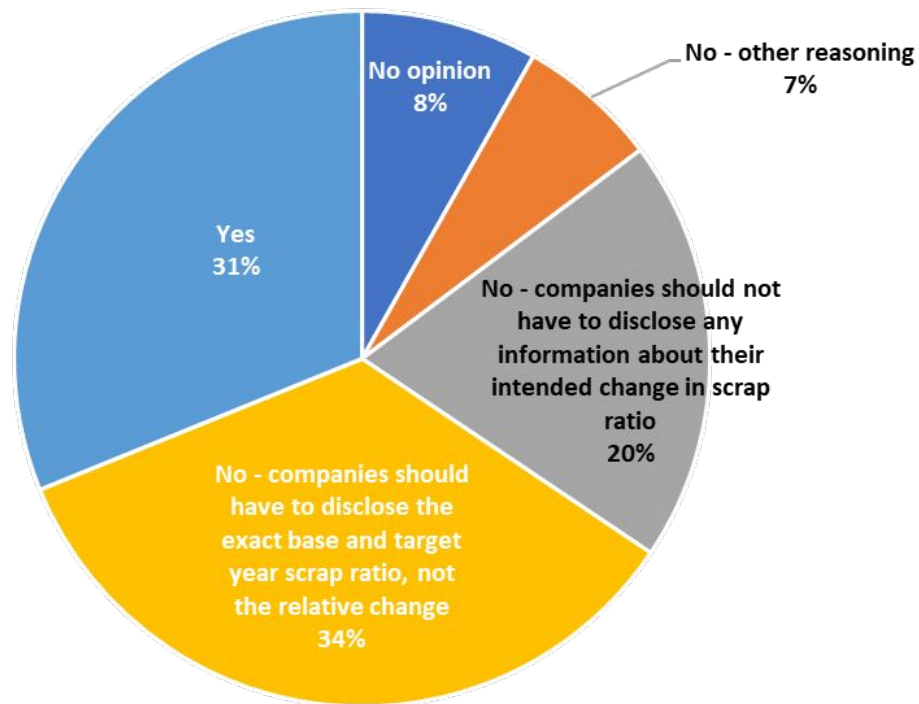


IF YOU ANSWERED, 'NO – OTHER REASONING', PLEASE BRIEFLY EXPLAIN WHY

- We recommend that mandatory targets focus on the Steel SDA boundaries only as it already includes material scope 3 emissions. If applying a mandatory threshold for scope 3 emissions, this 40% should only be calculated on the scope 3 sources that fall outside the SDA fixed system boundary.
- The production of ferroalloys and metallic additives can be a significant piece of steel's emissions profile, and its omission from the scope of a steel science-based target could create inconsistency between the efforts expected of high and low alloy producers, as well as of producers who do and don't own the production process of ferroalloys. We believe the SBTI should adopt or develop a framework to enable high alloy and stainless steel producers to include such emissions within their science-based target.



IN THE DRAFT GUIDANCE, COMPANIES MUST DECLARE THE RELATIVE CHANGE IN SCRAP INPUT ASSOCIATED WITH THEIR TARGET CALCULATION. THIS IS TO PROVIDE TRANSPARENCY ABOUT THE BASIS ON WHICH THE TARGET WAS CALCULATED. DO YOU AGREE WITH THIS APPROACH?



IF YOU ANSWERED, 'NO – OTHER REASONING', PLEASE BRIEFLY EXPLAIN WHY (1/2)

Reasons for not disclosing

- This can be confidential and sensitive information. Disclosing this information publicly would significantly impact the efficient operation of markets (e.g. scrap) and impact execution of business strategies (e.g. acquisitions).
- Also where companies have the opportunity to use DRI/HBI the scrap ratio may change but the decarbonization pathway will remain the same.
- It would restrict companies to the published targeted scrap ratio and not letting the freedom of the way of reaching the target.
- Scrap percentages change dramatically between grades of steel (especially flat rolled). Product mix will drive scrap use changes and any reported value will be calculated based on these variances over time making them arbitrary and not useful to in further analysis or calculations.



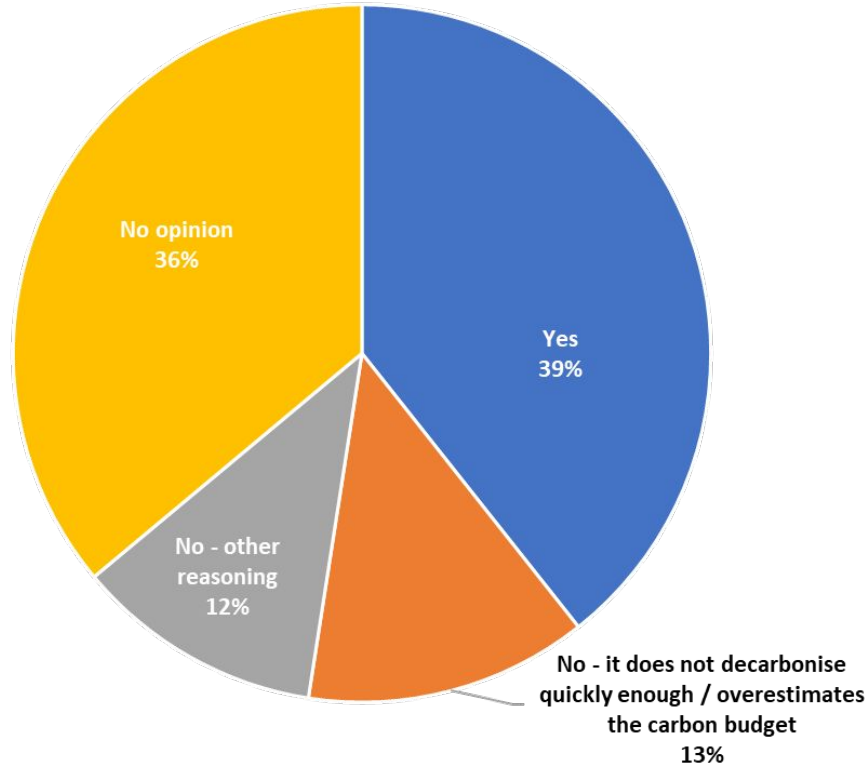
IF YOU ANSWERED, 'NO – OTHER REASONING', PLEASE BRIEFLY EXPLAIN WHY (2/2)

Reason for disclosing

- This would allow to verify whether the declared scrap input can be met in view of the market constraints. .
- Companies should be mandated to disclose the exact share of scrap they are reporting for purposes of goal-setting and emissions reductions. It is acceptable for companies to revise their numbers based on availability and market realities so long as that is also disclosed.
- We suggest steelmakers should provide the estimated scrap content for their steelmaking in their target year, and that this would be revised transparently each year of reporting against their science-based target.
- Without the disclosure of the scrap steel ratio at the company level could lead to a lack of credibility with regards to the claims of companies in this area. Without this transparency it will be impossible for stakeholders to properly assess company GHG goals and reductions.



THE DRAFT GUIDANCE PROVIDES A DETAILED EXPLANATION IN ITS APPENDIX ABOUT HOW THE DATA FOR THE CARBON BUDGET ASSOCIATED WITH ELECTRICITY PURCHASED AND SELF-GENERATED BY THE STEEL SECTOR WAS DERIVED, AS THIS WAS NOT AVAILABLE FROM THE IEA. DO YOU AGREE WITH THIS APPROACH?

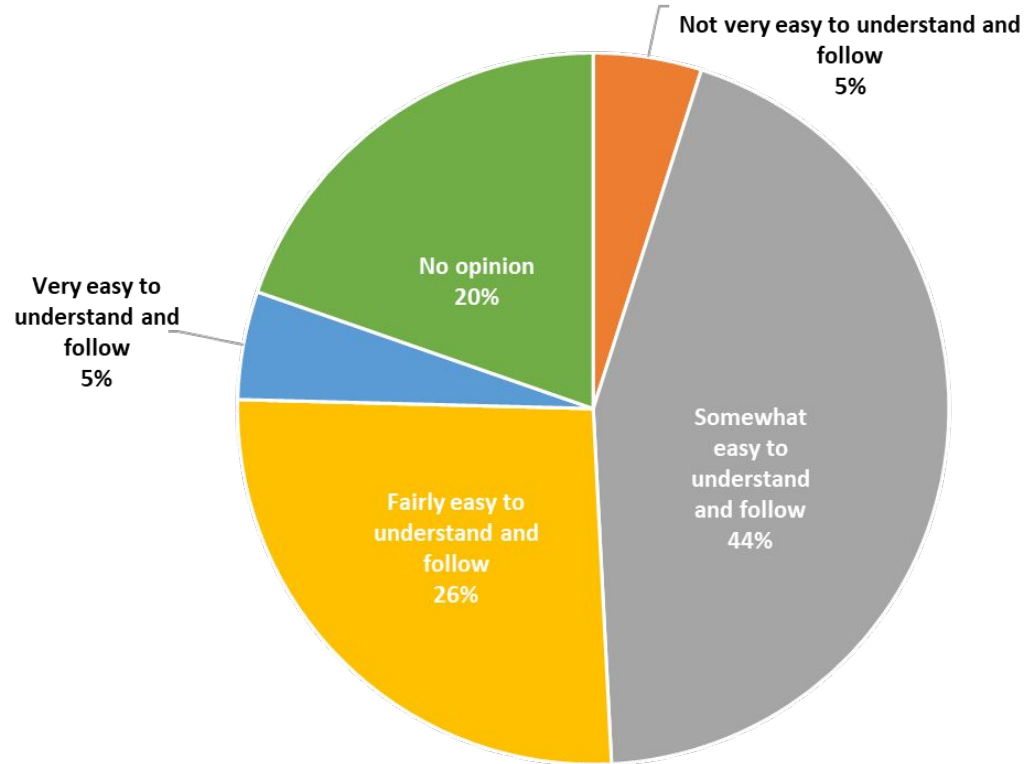


IF YOU ANSWERED, 'NO – OTHER REASONING', PLEASE BRIEFLY EXPLAIN WHY

- The electricity requirements for going the full green H₂-DRI-EA route is difficult to fathom/estimate at this stage. So this measure needs to be reviewed and amended on a regular basis. It cannot be cast in stone today.
- This we understand is to rebase the IEA NZE emissions budget to the same boundary as proposed by RMI. We respect RMI did a good job on doing this rebasing, but would be good to have a session where we can review and make constructive suggestions to potentially improve the rebasing.
- There appears to remain a risk of double counting process gas emissions. Further clarification would be helpful.
- We are wondering whether it considers capturing the CO₂ emissions from electricity production based on the off-gases.



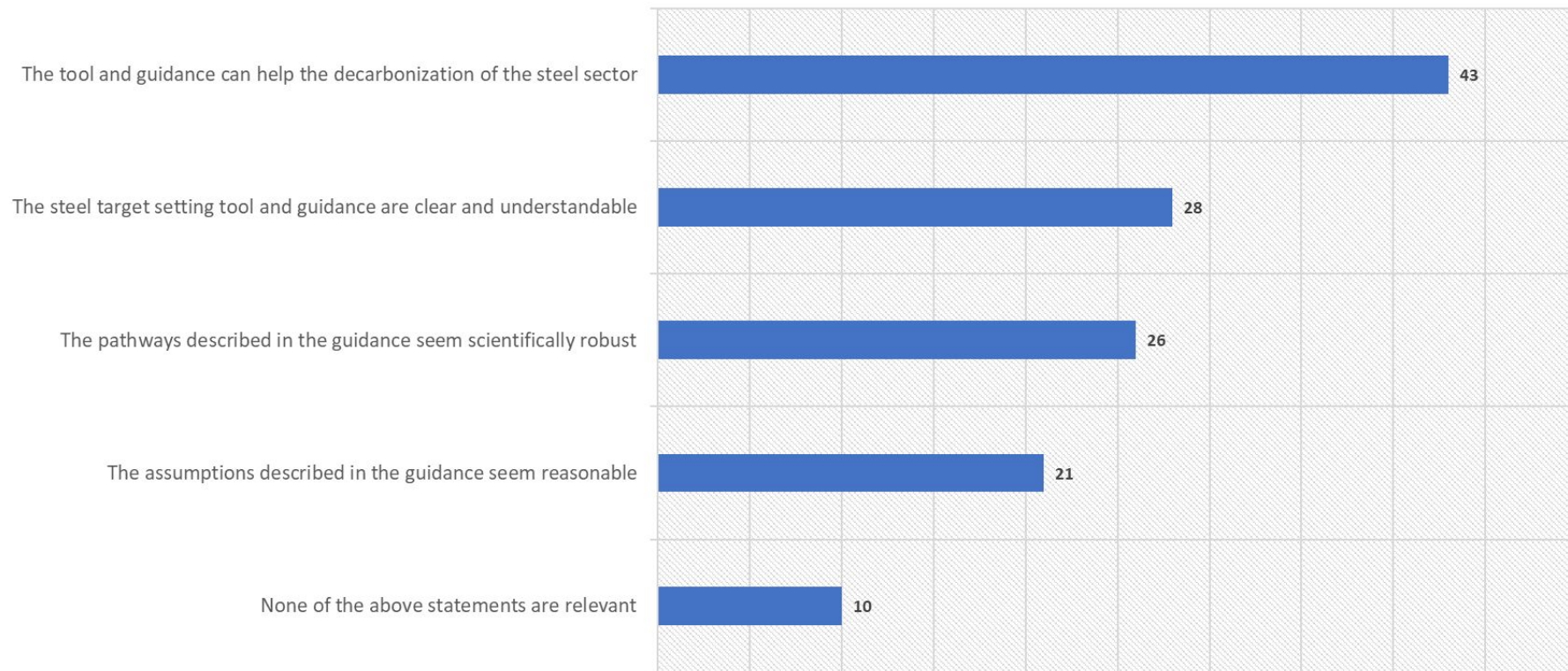
THE INSTRUCTIONS IN THE TOOL ARE EASY TO UNDERSTAND AND FOLLOW?



IF YOU DO NOT THINK THE TOOL IS EASY TO UNDERSTAND AND FOLLOW, WHY?

- Takes some time, trials and error to become familiar with the tool.
- There appear to be some inconsistencies on how the SBTi tool applies the Forward-Looking Adjustment (FLA).
- The tool doesn't capture the complexities/richness of the guidance. Scope 3 tab should be improved to capture mandatory vs optional targets. It will be great to have a detailed footprint tab (similar to the ones in the Net-Zero Tool where companies can transparently track emissions out of the SBTi proposed boundary).

GENERAL COMMENTS



PLEASE SHARE ANY COMMENTS THAT HAVE NOT BEEN CAPTURED IN THE QUESTIONS ABOVE

BOUNDARY

- Include coal mine methane - The SBTi must make a clear statement/commitment to include coal mining in the systems boundary as soon as there is robust data on methane emissions available. Encourage (or require) partners to purchase coal from companies that are part of IMEO's Metcoal Methane partnership.
- Include secondary metallurgy.
- Alignment needed between the current IEA boundary (crude steel) and the SBTi boundary (hot rolling) to ensure that the IEA values are increased to allow for hot rolling. How this is done needs to be fully addressed and not taken as a simple % increase.

PLEASE SHARE ANY COMMENTS THAT HAVE NOT BEEN CAPTURED IN THE QUESTIONS ABOVE

DATA TRANSPARENCY

- The SBTi must make a first assessment of data availability no later than two years from the publication of the sector guidance.
- Transparency on emission factors shall be encouraged.
- Transparency in the scrap ratio to ensure that absolute emissions reductions are being achieved.
- Incentivize the reporting of upstream emissions and supporting research that will better bound it. We ask the SBTi to phase in reporting of actual emissions (or provide unfavorable default values) to give industry an incentive to capture the data and take steps to minimize emissions.
- The SBTi should review the scope 3 data availability on an annual basis, and reopen a consultation to revise the guidance regarding scope 3 by 2025 to decide on how to make its inclusion mandatory.

PLEASE SHARE ANY COMMENTS THAT HAVE NOT BEEN CAPTURED IN THE QUESTIONS ABOVE

AMBITION LEVEL

- The draft conveys neither the urgency to switch to green steel from traditional BF-BOF production nor the need to course correct the sector back to a 1.5°C pathway by 2030 with matching near-term targets.
- A target such as MSCI's 8-10% year-on-year emissions reduction recommendation for reversion to 1.5°C emissions pathways by 2030 is a reasonable recommendation for the SBTi to implement, as it is a clear statement of ambition.
- A steeper curve post-2030 for primary production to recognize the commercial development of H2-DRI-EAF. The post-2030 carbon intensity curve presented for a 100% ore-based pathway should not be on a constant gradient to 2040. The curve should steepen (and accelerate towards zero) from the same point in 2030.
- Switching from BF-BOF to EAF and adopting green electricity are the key drivers of decarbonization by 2030.
- No company should be allowed to hold a validated SBTi target while investing in greenfield BF-BOF. 1.5°C alignment by 2030 is more important than net-zero by 2050, and this remains the priority for many investors and stakeholders.

PLEASE SHARE ANY COMMENTS THAT HAVE NOT BEEN CAPTURED IN THE QUESTIONS ABOVE

OTHER SUGGESTIONS

- The relationship between the steel guidance and power sector guidance should continue to be carefully reviewed to maximize decarbonization of the power use in the steel industry, and the power sector broadly.
- Purchased products may also include LNG, burnt dolomite, DRI which should be part of 95% of emissions criteria from purchased.
- We ask that SBTi guidance to other sectors reflect this and incentivize steel buyers to use less steel, use materials for longer, and use the lowest emissions materials for a given purpose.
- In recent years, start-ups have emerged on the steel sector and more actors are likely to enter the scene. They might have a key role in driving technological innovations that enables deep decarbonization of the steel sector. We ask for more guidance on how this kind of companies should implement the SBTi methodology.
- Further guidance required on scope 3 reporting. Mandatory scope 3 reporting will lead to a significant effort in data collection and reporting.
- How can regionalization be considered (in relation to scrap availability, renewable energy availability, CCS, biomass, etc.)?
- More clarity required on how charcoal is accounted for.

THANK YOU!

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