Greenhouse Gas Protocol Scope 3 TWG

Discussion Paper B.1

Scope 3, Boundary setting

(Chapter 5, "Identifying Scope 3 Emissions" and Chapter 6, "Setting the Scope 3 Boundary")

WORKING DRAFT, DO NOT CITE

This discussion paper addresses scope 3 boundary setting, minimum boundaries (category-agnostic) and justification for exclusions. This discussion paper is provided to Technical Working Group (TWG) members to contribute to the update process of the *Scope 3 Standard* and *Scope 3 Technical Guidance* with potential application or relevance for the *Corporate Standard* and *Scope 2 Guidance*.

The objective of this discussion paper is to consolidate relevant information for consideration. This includes a summary of current GHG Protocol standard requirements and guidance, background information and context, key terms (as needed), a summary of the requirements and guidelines from other frameworks and programs (where relevant), references to relevant research and summaries thereof (where necessary), a summary of stakeholder feedback from the recent scope 3 stakeholder survey, an overview of options for consideration, and an analysis of these options according to the GHG Protocol decision-making criteria.

DISCLAIMER:

This document is a working document to be used as an input for a discussion within the Technical Working Group of the Scope 3 Standard update process. The paper does not reflect the position of neither the Greenhouse Gas Protocol, nor WRI and WBCSD, nor members of the Technical Working Group. The statements are not designed to be final or complete.

Table of Contents

Abstract 5
Key terms 6
Glossary (Corporate Standard and Scope 3 Standard) 6
1. Background information and context 7
2. Summary of stakeholder feedback 8
2.1 Scope 3 boundary setting and justifications for exclusion 8
2.2 Minimum boundaries and optionality 9
3. Current GHG Protocol requirements and guidance 10
3.1 Scope 3 activities and minimum boundaries 10
3.2 GHG accounting and reporting principles 13
3.3 Justified exclusions 14
3.4 Downstream emissions from intermediate products 16
3.5 Hotspot analysis 16
4. Other frameworks and programs 18
4.1 ISO 14064-1:2018 18
4.2 Science Based Targets initiative (SBTi) 19
4.3 CSRD and ESRS 20
4.4 IFRS 21
4.5 Securities and Exchange Commission (SEC) Climate-Related Disclosure 22
4.6 Global Reporting Initiative (GRI) 23
4.7 CDP 23
4.8 Partnership for Carbon Accounting Financials (PCAF) 24
4.9 E-liabilities Proto-Standard 24
5. Summary of relevant research 25
5.1 Exclusions and underreporting 25
5.2 Justified exclusions 26
5.3 Materiality and de minimis 28
5.4 Findings from CDP reporting 30
6. Options under consideration 33
1. How should the relevance principle be considered in exclusion of activities 34
Option 1A. Maintain current language: Relevance is at the discretion of the preparer 35
Option 1B. Relevance is required (using "shall" wording throughout the *Standard*) 35
Option 1C. Relevance is required based on the criterion of magnitude of emissions only 36

Decision making criteria considerations 37
2. How do the relevance criteria need to be followed to fulfill relevance? 39
Option 2A. Maintain current language: Relevance assessment is at the practitioner's discretion 39
Option 2B. Relevance is defined as meeting at least one of the relevance criteria 39
Decision-making criteria considerations 40
3. Should a magnitude threshold be defined for determining relevance? 40
Option 3A Maintain current language: relevance of emissions size is at the discretion of the preparer 41
Option 3B Magnitude threshold is required to be defined at the discretion of preparer. 41
Option 3C Magnitude threshold is defined by the Scope 3 Standard. 41
Option 3D. Require all scope 3 emissions to be accounted for regardless of magnitude. 41
Decision making criteria considerations 41
4. Should the influence criterion be refined for determining relevance? 44
Option 4A. Maintain the current definition of influence 45
Option 4B. Define a list of influence pathways 45
Option 4C. Define the level of influence 46
Decision making criteria consideration 46
5. Should the guidance on exclusion of downstream categories for intermediate products be revised? 47
Option 5A. Maintain the current language 48
Option 5B. Editorial change to facilitate interpretation 49
Option 5C. Editorial change to facilitate interpretation, with removal of the provision to include or exclude all downstream categories. 49
Option 5D. Remove intermediate products as a special case 49
Decision making criteria considerations 50
6. Should de minimis be formally defined in the Scope 3 Standard? 52
Option 6A. Maintain the current language: no de minimis definition 53
Option 6B. Do not allow the application of de minimis 53
Option 6C. Permit application of de minimis, with the threshold defined by the preparer 53
Option 6D. Permit application of de minimis, with the threshold defined by the Scope 3 Standard 54
Decision making criteria considerations 54
7. Should the minimum boundaries of scope 3 categories be revised to require currently optional activities? 58
Option 5A. Maintain optionality of specific activities 59

Option 5B. Optionality is removed, with all activities included in required minimum boundary 59
Option 5C. Updates to optionality of specific activities is considered on a case-by-case basis 59
Decision-making criteria consideration 59
8. Should organizations be required to carry out a hotspot analysis as a step towards setting the inventory boundary? 60
Option 6A. Maintain recommendation for hotspot analysis (as is) 61
Option 6B. Require hotspot analysis 61
Decision making criteria considerations 61

Abstract

This discussion paper is intended for directional consideration of the Scope 3 Technical Working Group (subgroup B) in the first phase of the scope 3 update process.

The discussion paper focuses on boundary setting in scope 3 emissions accounting and reporting. In particular, the paper focuses on the principles of completeness and relevance, justified exclusions from the scope 3 inventory boundary, and setting magnitude threshold and de minimis[1]. The paper also considers revisiting the minimum boundaries of scope 3 categories to require optional activities, as well as a requirement to carry out a hot spot analysis.

The paper presents the background on the topic, current GHG Protocol requirements, overview of approaches adopted in other frameworks, relevant research, and the questions posed for the update. The following questions and their associated options are explored :

1. How should relevance principle be considered in exclusion of activities?
2. How do relevance criteria need to be followed to fulfill relevance?
3. Should a magnitude threshold be defined?
4. Should the influence criterion be refined?
5. Should the guidance on exclusion of downstream categories for intermediate products be revised?
6. Should "de minimis" be formally defined in the Scope 3 Standard?
7. Should the minimum boundaries of scope 3 categories be revised to require currently optional activities?
8. Should organizations be required to carry out a hotspot analysis as a step towards setting the inventory boundary?

For each question, options are presented in **section 6** herein. Description of the options is provided, as well as example(s) of standard text for revision, and preliminary analysis of the options based on the GHG Protocol decision-making criteria.

[1] Note that the term, de minimis, is not used in the *Scope 3 Standard* (2011), however, it is used in the *Corporate Standard* (2004).

Key terms

Glossary (Corporate Standard and Scope 3 Standard)

Term	Definition
De minimis	A permissible quantity of emissions that a company can leave out of its inventory (*Corporate Standard*, p. 70)
Material misstatement	Individual or aggregate errors, omissions and misrepresentations that significantly impact the GHG inventory results and could influence a user's decisions (*Scope 3 Standard*, p. 143).
Materiality	Concept that individual or the aggregation of errors, omissions and misrepresentations could affect the GHG inventory and could influence the intended users' decisions (*Scope 3 Standard*, p. 143).
Non-product-related procurement	Purchased goods and services that are not integral to the company's products, but are instead used to enable operations (also called indirect procurement) (*Scope 3 Standard*, p. 143).
Operational boundaries	The boundaries that determine the direct and indirect emissions associated with operations owned or controlled by the reporting company (*Scope 3 Standard*, p. 143).
Organizational boundaries	The boundaries that determine the operations owned or controlled by the reporting company, depending on the consolidation approach taken (equity or control approach) (*Scope 3 Standard*, p. 143).
Outsourcing	The contracting out of activities to other businesses (*Scope 3 Standard*, p. 143).
Significant influence	Power to participate in the financial and operating policy decisions but not control them. A holding of 20 percent or more of the voting power (directly or through subsidiaries) will indicate significant influence unless it can be clearly demonstrated otherwise. See International Accounting Standard (IAS) 28 for additional criteria for determining significant influence. (section 5.5, category 15 (Investments) (*Scope 3 Standard*, p. 144).

Abbreviations

BAU	Business as usual
CSRD	Corporate Sustainability Reporting Directive
ESRS	European Sustainability Reporting Standards
GHG	Greenhouse gas
GRI	Global Reporting Initiative
IFRS	International Financial Reporting Standards
PCAF	Partnership for Carbon Accounting Financials
SBTi	Science Based Targets initiative
SEC	Securities and Exchange Commission

1. Background information and context

Scope 3 emissions often represent the largest source of emissions for companies. Therefore, they may present significant opportunities for companies to influence GHG reductions.[2] The minimum boundaries specified for each scope 3 category in Table 5.4[3] of the *Scope 3 Standard* ensure that all major activities are included in a company's scope 3 inventory.[4]

In the thirteen years since the publication of the *Scope 3 Standard* (2011), multiple climate programs and mandatory disclosure frameworks have developed internationally that require the inclusion of value chain emissions that directly reference conformance with the *Scope 3 Standard*. This includes disclosure frameworks such as the Europe Union (EU) European Sustainability Reporting Standard on Climate Change (ESRS E1) and International Financial Reporting Standard Climate-related Disclosure (IFRS S2) and programs including the Science-Based Targets initiative (SBTi).

The GHG Protocol performed a scope 3 stakeholder survey in year 2022-2023. Stakeholder feedback via this survey revealed the need for clarity and support regarding interpreting and applying the minimum boundaries specified in the *Scope 3 Standard.*. Some respondents asserted that the current boundary definitions are not sufficiently clear for determining the inclusion or exclusion of some activities. Others expressed concern that the optionality and flexibility (non-prescriptiveness) of the standard can give rise to inconsistencies and fluctuations within and between companies scope 3 inventories over time.

These findings are supported by a recent survey conducted by the Science-Based Targets initiative (SBTi)[5]. In a question on barriers to baselining, over a quarter of respondents to this survey indicated identifying material scope 3 categories for inclusion to be one of them. The exclusion of scope 3 activities has been identified by some stakeholders as one of the main sources of potential discrepancy and/or inconsistency for publicly disclosed, corporate scope 3 emissions. Some assert that a combination of binding regulations, unambiguous guidance, and enforcement may reflect some of the ways to improve the accuracy of disclosures. Refer to **section 5** for a summary of relevant research.

Thus, the core challenge can be defined as follows: Scope 3 accounting is often complex, boundaries can be inconsistently applied in practice, there is confusion regarding justified exclusions, optionality, flexibility (including disclosing and justifying exclusions based on user-defined determinations in some cases), and/or the interpretation thereof. This might be leading to significant underreporting of emissions, which impedes interpretation, usability by stakeholders, and informed decision-marking.

The Scope 3 Technical Working Group (TWG) will consider revising the minimum boundary requirements, criteria for justified exclusions, optionality, and guidance in the *Scope 3 Standard*.

[2] *Scope 3 Standard*, section 1.3, Relationship to the GHG Protocol Corporate Standard (p. 6).
[3] Table 5.4 (Scope 3 Standard, p. 34-37).
[4] *Scope 3 Standard*, section 5.4, Overview of scope 3 categories (p. 32).
[5] Science Based Targets initiative (SBTi). (2024). Aligning corporate value chains to global climate goals. SBTi Research: Scope 3 Discussion Paper. SBTi Aligning Corporate Value Chains Scope 3 Discussion Paper (sciencebasedtargets.org)

2. Summary of stakeholder feedback

Between November 2022 and March 2023, the public was invited to provide feedback on the current suite of corporate standards and guidance, including the *Scope 3 Standard* and *Technical Guidance*, and to provide suggestions for either maintaining current practices or developing updates and new or additional guidance.

Approximately 350 individuals and/or organizations submitted feedback through the Scope 3 stakeholder survey. The Detailed Survey Summary and Proposals Summary are available online summarizing the feedback and proposals received from stakeholders. The following section summarizes feedback relevant to topics considered in this discussion paper.

2.1 Scope 3 boundary setting and justifications for exclusion

Respondents had diverse views on the inclusion and exclusion of activities and categories from scope 3 accounting. Many respondents recommended requiring all or some scope 3 categories over a phase-in period. A few respondents recommended requiring the disclosure of only upstream scope 3 emissions or removing downstream activities from scope 3 entirely. Arguments for excluding or removing downstream scope 3 activities included that companies have limited control, limited influence, and/or difficulty in reliably estimating downstream emissions. In cautioning against requiring scope 3 emissions, some argued that the GHG Protocol needs to balance the reality of what most companies can measure, track, and reasonably be expected to report on and/or influence. Some respondents asserted that the GHG Protocol's corporate suite of standards and guidance should be inclusive and accessible, and that all requirements should be reasonably achievable by all organizations facing a range of constraints and with varying capacities. Some respondents recommended leaving it to programs or regulators, exclusively, to mandate prescriptive scope 3 accounting and reporting requirements.

The phrasing of justifiable exclusions received particular attention in the feedback. Many respondents requested that the GHG Protocol develop tighter definitions for "relevance", "materiality", "influence", and "meaningful". This should be coordinated with changes, if any, made to the minimum boundaries and other requirements. Some expressed confusion regarding how "relevance", "materiality", or "meaningful" relate or differ, with implications for assessing completeness. Some expressed difficulty in numerically assessing materiality to determine inclusion and exclusion. Some respondents requested that companies be left to select their own relevance and materiality thresholds, subject to transparent disclosure of the chosen numerical thresholds. Some respondents believe that materiality or relevance thresholds should not be prescriptively set by the GHG Protocol but by disclosure frameworks or legislators.

Other respondents recommend providing a clearer definition for "influenceability" in the context of completeness and relevance. Some respondents expressed confusion understanding or assessing their influence parameter uncertainty. The *Standard* states that "each entity in the value chain has some degree of influence" and that emissions reduction necessitates the "simultaneous action of multiple parties" (p. 108), while also stating that, "in some situations, companies may" have limited ability to "influence GHG reductions" (p. 60). This broad stance should be tightened to support the reporting, tracking, and prioritization of corporate efforts. Finally, some argued that control should dictate inclusion rather than a company's "relative degree of influence over" value chain emissions or activities.

In considerations of category 15 (investments) some asserted that the "significant influence" clause in definition of equity investments of Table 5.9 (*Scope 3 Standard*, p. 52) leaves too much room for interpretation. Instead, some recommended that the GHG Protocol "define a

clear threshold at which scope 3 emissions…", including from investees, subsidiaries, and joint ventures, "…are to be taken into account" for category 15. Some respondents recommended changing the "if significant" clause for including or excluding the emissions of investees (*Technical Guidance*, p. 141), and clarifying the boundary for investors to include or exclude the downstream, indirect scope 3 emissions of investees if an investee's "scope 3 emissions are significant compared to other source[s] of emissions or otherwise relevant" (*Technical Guidance,* p. 138)[6].

2.2 Minimum boundaries and optionality

Many respondents asked for more guidance on interpreting and applying the minimum boundaries. Several respondents asserted that the current boundary definitions are inconsistent or unclear to determine the inclusion or exclusion of some activities[7]. One respondent asserted that the scope 3 boundaries, "unlike scope 1 and scope 2", are "broad and inclusive" by design, and therefore require more specific and detailed boundary guidance to "enable a more true and fair representation of companies' footprints and responsibilities."

Activities' optionality was raised as a leading factor affecting inventory incomparability. Some respondents asserted that too much of the *Standard* is recommended or optional, rather than being unambiguously specified and required. Some believe that this is confusing and results in the inconsistent application of the *Standard*. A few cautioned that some reporting entities take the stance to be as inclusive as possible with activities, while others maximize exclusion, for example, by never exceeding the minimum boundary requirements of the *Scope 3 Standard*. While inclusion is often dictated by factors like data availability, cost constraints, and value chain partners participation, optionality complicates data exchange and risks material omissions which affects performance metrics, comparability, and claims.

Several respondents expressed concern that differences in activities optionality and accounting boundaries give rise to year-over-year GHG inventory fluctuations, including because there is no consistency regarding inclusion or exclusion when assets are owned, leased, outsourced, or franchised. Several asserted that this compromises the principles of consistency and relevance.

Some recommended tighter minimum boundaries to enable more consistent and meaningful performance tracking of emissions and requiring the entities transparently document any changes to the data, inventory boundaries, methods, or other relevant factors.

[6] The feedback relating to the minimum boundaries of category 15 will be considered by Group C of the Scope 3 TWG

[7] Combined, category 10 and category 11 accounted for nearly half of all requests for category-specific guidance; and category 3 accounted for a sizeable fraction.

3. Current GHG Protocol requirements and guidance

The *Scope 3 Standard* and associated *Technical Guidance* provide requirements and guidance on the following topics relevant to this discussion paper:

- Scope 3 boundary requirements and guidance
- Scope 3 category activities
- Minimum boundaries for each scope 3 category
- Application of GHG accounting and reporting principles
- Requirements for justifying exclusions

3.1 Scope 3 activities and minimum boundaries

The *Scope 3 Standard* defines the activities to be included in each scope 3 category, as well as the minimum boundaries for accounting and reporting (Table 5.4 of the *Scope 3 Standard,* p. 34-37). The key scope 3 accounting requirements are:

- Companies **shall** account for all scope 3 emissions as defined in [the] standard and disclose and justify any exclusions. (Chapter 6, p. 59)
- Companies **shall** account for emissions from each scope 3 category according to the minimum boundaries (which are provided in table 5.4). (Chapter 6, p. 59)
- Companies **may** include emissions from optional activities within each category. (Chapter 6, p. 60)
- Companies **may** exclude scope 3 activities from the inventory, provided that any exclusion is disclosed and justified. (Chapter 6, p. 60) – refer to further guidance in chapter 3.3 Justified exclusions
- Companies **may** account for additional emissions beyond the minimum boundary where relevant. (Chapter 5, p. 32)

The following are the minimum boundaries and optional activities specified in the *Scope 3 Standard*.

Table 1. Description and boundaries of scope 3 categories - Table 5.4. of the Scope 3 Standard

Category	Category description	Minimum boundary
1. Purchased goods and services	Extraction, production, and transportation of goods and services purchased or acquired by the reporting company in the reporting year, not otherwise included in Categories 2 – 8	All upstream (cradle-to-gate) emissions of purchased goods and services
2. Capital goods	Extraction, production, and transportation of capital goods purchased or acquired by the reporting company in the reporting year	All upstream (cradle-to-gate) emissions of purchased capital goods
3. Fuel- and energy-related activities (not included in scope 1 or scope 2)	Extraction, production, and transportation of fuels and energy purchased or acquired by the reporting company in the reporting year, not already accounted for in scope 1 or scope 2, including: a. Upstream emissions of purchased fuels (extraction, production, and transportation of fuels consumed by the reporting company) b. Upstream emissions of purchased electricity	a. For upstream emissions of purchased fuels: All upstream (cradle-to-gate) emissions of purchased fuels (from raw material extraction up to the point of, but excluding combustion) b. For upstream emissions of purchased electricity: All upstream (cradle-to-gate) emissions of purchased fuels (from raw material extraction up to the point of, but

Category	Category description	Minimum boundary
	(extraction, production, and transportation of fuels consumed in the generation of electricity, steam, heating, and cooling consumed by the reporting company) c. Transmission and distribution (T&D) losses (generation of electricity, steam, heating and cooling that is consumed (i.e., lost) in a T&D system) – reported by end user d. Generation of purchased electricity that is sold to end users (generation of electricity, steam, heating, and cooling that is purchased by the reporting company and sold to end users) – reported by utility company or energy retailer only	excluding, combustion by a power generator) c. For T&D losses: All upstream (cradle-to-gate) emissions of energy consumed in a T&D system, including emissions from combustion d. For generation of purchased electricity that is sold to end users: Emissions from the generation of purchased energy
4. Upstream transportation and distribution	Transportation and distribution of products purchased by the reporting company in the reporting year between a company's tier 1 suppliers and its own operations (in vehicles and facilities not owned or controlled by the reporting company). Transportation and distribution services purchased by the reporting company in the reporting year, including inbound logistics, outbound logistics (e.g., of sold products), and transportation and distribution between a company's own facilities (in vehicles and facilities not owned or controlled by the reporting company)	The scope 1 and scope 2 emissions of transportation and distribution providers that occur during use of vehicles and facilities (e.g., from energy use) Optional: The life cycle emissions associated with manufacturing vehicles, facilities, or infrastructure
5. Waste generated in operations	Disposal and treatment of waste generated in the reporting company's operations in the reporting year (in facilities not owned or controlled by the reporting company)	The scope 1 and scope 2 emissions of waste management suppliers that occur during disposal or treatment Optional: Emissions from transportation of waste
6. Business travel	Transportation of employees for business-related activities during the reporting year (in vehicles not owned or operated by the reporting company)	The scope 1 and scope 2 emissions of transportation carriers that occur during use of vehicles (e.g., from energy use) Optional: The life cycle emissions associated with manufacturing vehicles or infrastructure
7. Employee commuting	Transportation of employees between their homes and their worksites during	The scope 1 and scope 2 emissions of employees and

Category	Category description	Minimum boundary
	the reporting year (in vehicles not owned or operated by the reporting company)	transportation providers that occur during use of vehicles (e.g., from energy use) Optional: Emissions from employee Teleworking
8. Upstream leased assets	Operation of assets leased by the reporting company (lessee) in the reporting year and not included in scope 1 and scope 2 – reported by lessee	The scope 1 and scope 2 emissions of lessors that occur during the reporting company's operation of leased assets (e.g., from energy use) Optional: The life cycle emissions associated with manufacturing or constructing leased assets
9. Downstream transportation and distribution	Transportation and distribution of products sold by the reporting company in the reporting year between the reporting company's operations and the end consumer (if not paid for by the reporting company), including retail and storage (in vehicles and facilities not owned or controlled by the reporting company)	The scope 1 and scope 2 emissions of transportation providers, distributors, and retailers that occur during use of vehicles and facilities (e.g., from energy use) Optional: The life cycle emissions associated with manufacturing vehicles, facilities, or infrastructure
10. Processing of sold products	Processing of intermediate products sold in the reporting year by downstream companies (e.g., manufacturers)	The scope 1 and scope 2 emissions of downstream companies that occur during processing (e.g., from energy use)
11. Use of sold products	End use of goods and services sold by the reporting company in the reporting year	The direct use-phase emissions of sold products over their expected lifetime (i.e., the scope 1 and scope 2 emissions of end users that occur from the use of: products that directly consume energy (fuels or electricity) during use; fuels and feedstocks; and GHGs and products that contain or form GHGs that are emitted during use) Optional: The indirect use-phase emissions of sold products over their expected lifetime (i.e., emissions from the use of products that indirectly consume energy (fuels or electricity) during use)
12. End-of-life treatment of sold products	Waste disposal and treatment of products sold by the reporting company (in the reporting year) at the end of their life	The scope 1 and scope 2 emissions of waste management companies that occur during disposal or treatment of sold products
13. Downstream leased assets	Operation of assets owned by the reporting company (lessor) and leased	The scope 1 and scope 2 emissions of lessees that occur

Category	Category description	Minimum boundary
	to other entities in the reporting year, not included in scope 1 and scope 2 – reported by lessor.	during operation of leased assets (e.g., from energy use). Optional: The life cycle emissions associated with manufacturing or constructing leased assets
14. Franchises	Operation of franchises in the reporting year, not included in scope 1 and scope 2 – reported by franchisor	The scope 1 and scope 2 emissions of franchisees that occur during operation of franchises (e.g., from energy use) Optional: The life cycle emissions associated with manufacturing or constructing franchises
15. Investments	Operation of investments (including equity and debt investments and project finance) in the reporting year, not included in scope 1 or scope 2	See the description of category 15 (Investments) in section 5.5 for the required and optional boundaries

Any scope 3 activities not captured by the list of scope 3 categories (e.g., transportation of attendees to conferences/events) may be reported separately (e.g., in an "other" scope 3 category). The minimum boundaries are intended to ensure that major activities are included in the scope 3 inventory, while clarifying that companies need not account for the value chain emissions of each entity in its value chain, ad infinitum. (Chapter 5, p. 31)

3.2 GHG accounting and reporting principles

The *Scope 3 Standard* requirements state that GHG accounting and reporting of a scope 3 inventory **shall** be based on the following principles: relevance, completeness, consistency, transparency, and accuracy (p.21).

The definition for the principle of completeness is identical in the *Scope 3 Standard* and in the *Corporate Standard*:

> **Completeness: "**Account for and report on all GHG emission sources and activities within the chosen inventory boundary. Disclose and justify any specific exclusions." (Corporate Standard, p. 7; Scope 3 Standard, p. 23)

Both standards provide guidance on the principle of completeness and acknowledge that limiting factors may exist leading to certain exclusions. While the Corporate Standard discusses the nature and use of accounting thresholds, the Scope 3 Standard focuses on reasons for incompleteness and/or exclusions.

Corporate Standard guidance:

> "All relevant emissions sources within the chosen inventory boundary need to be accounted for so that a comprehensive and meaningful inventory is compiled. In practice, a lack of data or the cost of gathering data may be a limiting factor. Sometimes it is tempting to define a minimum emissions accounting threshold (often referred to as a materiality threshold) stating that a source not exceeding a certain size can be omitted from the inventory. Technically, such a threshold is simply a predefined and accepted negative bias in estimates (i.e., an underestimate). Although it appears useful in theory, the practical implementation of such a threshold is not compatible with the completeness principle of the GHG Protocol Corporate

Standard. In order to utilize a materiality specification, the emissions from a particular source or activity would have to be quantified to ensure they were under the threshold. However, once emissions are quantified, most of the benefit of having a threshold is lost.

A threshold is often used to determine whether an error or omission is a material discrepancy or not. This is not the same as a de minimis for defining a complete inventory. Instead companies need to make a good faith effort to provide a complete, accurate, and consistent accounting of their GHG emissions. For cases where emissions have not been estimated, or estimated at an insufficient level of quality, it is important that this is transparently documented and justified. Verifiers can determine the potential impact and relevance of the exclusion, or lack of quality, on the overall inventory report." (Corporate Standard, p. 8)

Scope 3 Standard Guidance:

"Companies should ensure that the scope 3 inventory appropriately reflects the GHG emissions of the company, and serves the decision-making needs of users, both internal and external to the company. In some situations, companies may be unable to estimate emissions due to a lack of data or other limiting factors. Companies should not exclude any activities from the scope 3 inventory that would compromise the relevance of the reported inventory. In the case of any exclusions, it is important that all exclusions be documented and justified. Assurance providers can determine the potential impact and relevance of the exclusion on the overall inventory report. More information on completeness is provided in chapter 6." (Scope 3 Standard, p. 24)

3.3 Justified exclusions

The requirements outlined above and the GHG accounting and reporting principles inform when an exclusion can be justified. However, the guidance is flexible, which can ultimately give companies broad discretion in what is excluded from their inventory.

As the guidance to the principle of completeness (Chapter 4) states: "In some situations, companies may be unable to estimate emissions due to a lack of data or other limiting factors."

Companies **may** exclude scope 3 activities from the inventory, provided that any exclusion is disclosed and justified (section 5.4, p. 31) Disclosing and justifying exclusions is discussed in detail in section 6.3 of the Scope 3 Standard.

Guidance on disclosing and justifying exclusions (Chapter 6, p. 60):

- "Companies **should** strive for completeness, but it is acknowledged that accounting for all scope 3 emissions may not be feasible. Some categories may not be applicable to all companies. For example, some companies may not have leased assets or franchises. In such cases, companies should report zero emissions or "not applicable" for any categories that are not applicable.
- In some situations, companies may have scope 3 activities, but be unable to estimate emissions due to a lack of data or other limiting factors. For example, companies may find that based on initial estimates, some scope 3 activities are expected to be insignificant in size (compared to the company's other sources of emissions) and that for these activities, the ability to collect data and influence GHG

reductions is limited. In such cases, companies **may** exclude scope 3 activities from the report, provided that any exclusion is disclosed and justified.

- Companies **should** follow the principles of relevance, completeness, accuracy, consistency, and transparency when deciding whether to exclude any activities from the scope 3 inventory. Companies **should not** exclude any activity that would compromise the relevance of the reported inventory. (See table 6.1 for a list of criteria for determining relevance.) Companies **should** ensure that the scope 3 inventory appropriately reflects the GHG emissions of the company, and serves the decision-making needs of users, both internal and external to the company.
- In particular, companies **should not** exclude any activity that is expected to contribute significantly to the company's total scope 3 emissions. (See section 7.1 for guidance on prioritizing emissions.)
- Companies **are required** to disclose and justify any exclusions in the public report (see chapter 11).
- See box 6.1 for an example of disclosing and justifying exclusions."

Chapter 6 introduces criteria for identifying relevance (Figure 1)

Table [6.1] Criteria for identifying relevant scope 3 activities

Criteria	*Description*
Size	They contribute significantly to the company's total anticipated scope 3 emissions (see section 7.1 for guidance on using initial estimation methods)
Influence	There are potential emissions reductions that could be undertaken or influenced by the company (see box 6.2)
Risk	They contribute to the company's risk exposure (e.g., climate change related risks such as financial, regulatory, supply chain, product and customer, litigation, and reputational risks) (see table 2.2)
Stakeholders	They are deemed critical by key stakeholders (e.g., customers, suppliers, investors, or civil society)
Outsourcing	They are outsourced activities previously performed in-house or activities outsourced by the reporting company that are typically performed in-house by other companies in the reporting company's sector
Sector guidance	They have been identified as significant by sector-specific guidance
Other	They meet any additional criteria for determining relevance developed by the company or industry sector

Figure 1. Table 6.1 of the Scope 3 Standard, Criteria for identifying relevant scope 3 activities

In further explanations, Chapter 6 provides several examples of justified exclusions.

Examples at p. 60 of the *Standard*:

> "Companies should strive for completeness, but it is acknowledged that accounting for all scope 3 emissions may not be feasible. Some categories may not be applicable to all companies. For example, some companies may not have leased assets or franchises. In such cases, companies should report zero emissions or "not applicable" for any categories that are not applicable.

> "In some situations, companies may have scope 3 activities, but be unable to estimate emissions due to a lack of data or other limiting factors. For example,

> companies may find that based on initial estimates, some scope 3 activities are expected to be insignificant in size (compared to the company's other sources of emissions) and that for these activities, the ability to collect data and influence GHG reductions is limited. In such cases, companies may exclude scope 3 activities from the report, provided that any exclusion is disclosed and justified."

Example from box 6.1 (p. 61) of the standard, "Example of disclosing and justifying exclusions":

> "After mapping its value chain, a company uses initial GHG estimation methods to estimate the emissions from the various spend categories within category 1 (Purchased goods and services). The company finds that emissions from production-related procurement are significant compared to its other sources of scope 3 emissions. The company determines that emissions from non-production-related procurement are difficult to calculate and are not expected to contribute significantly to total scope 3 emissions. The company uses more accurate methods to calculate emissions from production-related procurement, but decides to exclude emissions from non-production-related procurement. The company discloses and justifies the exclusion of non-production-related procurement based on limited data availability and its expected insignificant contribution to total scope 3 emissions."

3.4 Downstream emissions from intermediate products

Further, section 6.4, "Accounting for downstream emissions," provides additional provisions for downstream categories for intermediary products:

> "The applicability of downstream scope 3 categories depends on whether products sold by the reporting company are final products or intermediate products (see section 5.6).
>
> In certain cases, the eventual end use of sold intermediate products may be unknown. For example, a company may produce an intermediate product with many potential downstream applications, each of which has a different GHG emissions profile, and be unable to reasonably estimate the downstream emissions associated with the various end uses of the intermediate product. In such a case, companies may disclose and justify the exclusion of downstream emissions from categories 9, 10, 11, and 12 in the report (but should not selectively exclude a subset of those categories)." (Scope 3 Standard, p. 60)

3.5 Hotspot analysis

Hotspot analysis is considered in the Scope 3 Standards as a method aiming at identification of the largest emission sources (p. 12) and thus prioritizing efforts in data collection (p. 74-75), engagement with value chain partners (p.14 and 74), and emission reduction opportunities (p. 12).

Chapter 7 of the Scope 3 Standard considers approaches to prioritizing activities based on the magnitude of GHG emissions:

> "The most rigorous approach to identifying priority activities is to use initial GHG estimation (or screening) methods to determine which scope 3 activities are expected to be most significant in size. A quantitative approach gives the most

447 accurate understanding of the relative magnitudes of various scope 3 activities. To
448 prioritize activities based on their expected GHG emissions, companies should:

449 • use initial GHG estimation (or screening) methods to estimate the emissions
450 from each scope 3 activity (e.g., by using industry-average data,
451 environmentally-extended input output data (see box 7.1), proxy data, or
452 rough estimates); and

453 • rank all scope 3 activities from largest to smallest according to their
454 estimated GHG emissions to determine which scope 3 activities have the most
455 significant impact"

456 "As an alternative to ranking scope 3 activities based on their estimated GHG
457 emissions, companies **may** choose to prioritize scope 3 activities based on their
458 relative financial significance.
459 Companies **may** use a financial spend analysis to rank upstream types of purchased
460 products by their contribution to the company's total spend or expenditure […]
461 For downstream emissions, companies **may** likewise rank types of sold products by
462 their contribution to the company's total revenue.
463 Companies **should** use caution in prioritizing activities based on financial
464 contribution, because spend and revenue **may not** correlate well with emissions.[…]
465 As a result, companies **should** also prioritize activities that do **not** contribute
466 significantly to financial spend or revenue, but are expected to have a significant
467 GHG impact."
468

469

4. Other frameworks and programs

Analysis of major frameworks shows that justification for scope 3 activity exclusions in carbon accounting and reporting is predominantly connected with relevance or materiality of the activities, left to the assessment and judgment of the preparer of a scope 3 inventory. The relevance criteria listed in various frameworks largely resemble the relevance criteria listed in table 6.1 of the *Scope 3 Standard* and are often listed as potential criteria or examples. Majority of the considered frameworks do not set fixed indicators and thresholds for in-/exclusion. Only two frameworks (SBTi and to some degree CDP) set a quantitative criteria set on the magnitude of the activities' emissions, of 5%.

The optionality of activities is addressed specifically only in SBTi. Other frameworks refer to the GHG Protocol *Scope 3 Standard* or *ISO 14064* to address accounting and reporting requirements, including the reporting of all significant or relevant scope 3 categories and/or emissions.

4.1 ISO 14064-1:2018

The ISO standard 14064-1:2018 Part 1(Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals) offers a choice of control or equity share consolidation in determining organizational boundaries; and identifies direct and indirect emissions within operational boundaries. ISO categorizes indirect emissions into four types:

- Emissions from transport
- Emissions from products used by the organization
- Emissions associated with the use of products from the organization
- Emissions from other sources

While examples are given for activities that can be included as indirect emissions (Annex B of the ISO standard), ISO does not mandate any of them.

However, in section 5.2.3 ISO requires an organization to quantify and report its significant emissions. An organization shall define its own pre-determined criteria for determining significance of indirect emissions. The organization shall identify and evaluate its indirect GHG emissions using these criteria, to select the significant ones. Exclusion of significant indirect emissions is allowed but, as per ISO, shall be justified. Independent of the intended use, the criteria should not be used to exclude substantial quantities of indirect emissions or evade compliance obligations (ISO 14064-1:2018, 5.2.3).

Annex H of the ISO standard provides guidance for identifying significant emissions. It advises considering the five accounting principles defined by ISO (relevance, completeness, consistency, accuracy, and transparency) while setting up the significance criteria, and lists the following as possible criteria to evaluate significance:

- Magnitude of emissions
- Level of influence
- Risk or opportunity
- Sector-specific guidance
- Outsourcing
- Employee engagement

Significance criteria can be designed to be qualitative or quantitative; however, ISO warns that the application of qualitative criteria "may not result in an obvious determination of whether the source of indirect emissions or removals is significant" (ISO 14064-1:2018, H.2, p. 45).

Following Annex B, the standard states that "in most cases, the organization does not know the product's exact destiny through its life stages and, thus, should define plausible scenarios for each life stage. The scenarios should be clearly explained in the report." (p. 23). It further acknowledges that "the more the product is a final product, the easier it is to define scenarios" (p.24), but does specify it to be an exclusion justification.

4.2 Science Based Targets initiative (SBTi)

Generally, the SBTi in its emissions accounting practices refers to the scopes and categories specified by the Greenhouse Gas Protocol, with minor re-classifications for scope 1 and scope 2. For setting organizational boundaries and calculation of the value chain emissions, the initiative refers to the GHG Protocol *Scope 3 Standard* in particular. The inventory must therefore be developed including all relevant categories and all emissions sources categorized as minimum boundary in Table 5.4 of the GHG Protocol *Scope 3 Standard*. (SBTi Corporate Net Zero Standard, V1.2, p.22)

The SBTi relies on relevance to qualify inclusion and therefore non-exclusion:

> "Companies are expected to account for all scope 3 categories including downstream emissions from intermediate products and services, where relevant. In the instance that a company faces barriers to calculating emissions from one category of scope 3, the company should demonstrate its best efforts to calculate these emissions, and this shall not preclude it from providing reasonable estimates of emissions in other categories." (SBTi Corporate Net-Zero Standard, V1.2[8], p. 23)

Annex A of the SBTi Corporate Net-Zero Standard provides supplementary guidance and requirements. This includes that:

1) Downstream emissions from intermediate products for which end use is unknown may be excluded if reasonable justification is provided (referencing guidance from the GHG Protocol *Scope 3 Standard*)
2) Downstream emissions from intermediate products with specific applications should be included

Sector-specific guidance may specify the minimum boundaries for downstream activities. The Steel Science Based Target-Setting Guidance (v.1.0, 2023) sets up the boundary on hot rolling (i.e. processing). The Cement Science Based Target-Setting Guidance (v.1.0, 2022) refers to the Cement Sector Scope 3 GHG Accounting and Reporting Guidance[9], which provides the default scenario for category 10 (processing), and allows for the omission of category 11 and category 12 emissions.

While optional activities in the minimum boundaries for SBT on a sector-agnostic level are not counted towards the required target boundary (the "minimum boundary"), companies are encouraged to calculate these emissions and set optional targets in addition to the mandatory scope 3 target(s) if they have significant optional scope 3 emissions and levers to address them.

[8] SBTi Corporate Net-Zero Standard V1.2 (sciencebasedtargets.org)
[9] WBCSD Cement Sector Scope 3 GHG Accounting and Reporting Guidance, 2016 160725-183700-HF-OS (wbcsd.org)

The SBTi differs from the GHG Protocol *Scope 3 Standard* optionality guide only as it concerns transport-related emissions. The SBTi specifies that companies shall set targets for these emissions on a well-to-wheel/wake (WTW) basis in their GHG inventory (thus, including the optional upstream emissions of fuels, e.g., extraction, processing, distribution) for all transport-related emissions across all sectors.

It is necessary to note, however, that in its 2024 Scope 3 Discussion paper, SBTi lists optionality in GHG accounting and calculation approaches as one of the key challenges of target setting and implementation: "The flexibility and optionality in GHG accounting and the absence of more detailed guidance, including limited sector-specific guidance, result in limited comparability of corporate GHG inventories between companies and consistency over time" (SBTi, 2024, p.20)[10].

Companies are required to prepare a complete scope 3 inventory (SBTi Corporate Net-Zero standard, p.22). Regarding emissions coverage, the SBTi Corporate Net-Zero standard says that "Companies shall not exclude more than 5% of emissions from their total scope 3 GHG inventory. The SBTi does not recognize emissions perceived to be "negligible" as a rationale for not reporting them. Even if emissions from certain activities or operations are perceived to be negligible, these emissions still must be quantified and reported in the reporting company's GHG inventory or disclosed as an exclusion." (SBTi Corporate Net-Zero standard, p.36). All exclusions must be estimated and disclosed. The 90% scope 3 emissions coverage is named in the target setting context a materiality threshold; exclusions in the inventory and target boundary combined must not exceed 10% of total scope 3 emissions. (SBTi Corporate Net-Zero standard, p.22)

4.3 CSRD and ESRS

ESRS E1 Climate Change[11] provides the requirements and recommendations for inventory preparation and reporting for undertakings falling under CSRD[12] . The requirement to report organizations' GHG emissions is subject to an assessment of double materiality[13]. For climate change related disclosures, specifically, if the topic is determined to *not* be material for an undertaking, then the undertaking shall disclose a detailed explanation of why it is not material.

Application Requirement (AR) 46 itemizes requirements that undertaking "… **shall** [emphasis added]…" satisfy when "… preparing the information on gross Scope 3 GHG ***emissions*** required under paragraph 51…".

- AR 46 (c) specifies that an undertaking shall "… **screen its total Scope 3 GHG emissions based on the 15 Scope 3 categories** [emphasis added] identified by the GHG Protocol Corporate Standard and GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Version 2011) using appropriate estimates. Alternatively, it may screen its indirect GHG emissions based on the

[10] Science Based Targets initiative (SBTi). (2024). Aligning corporate value chains to global climate goals. SBTi Research: Scope 3 Discussion Paper SBTi Aligning Corporate Value Chains Scope 3 Discussion Paper (sciencebasedtargets.org)

[11] See as included into the Commission Delegated Regulation (EU) 2023/2772 of 31 July 2023

[12] Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting (Text with EEA relevance)

[13] A sustainability matter is "material" when it meets the criteria defined for impact materiality (see section 3.4 of ESRS E1) or financial materiality (see section 3.5 of ESRS E1) or both

categories provided by EN ISO 14064-1:2018 clause 5.2.4 (excluding indirect GHG emissions from imported energy)…"[14]

- AR 46 (d) specifies that an undertaking shall "… identify and disclose its **significant** [emphasis added] Scope 3 categories based on the **magnitude** [emphasis added] of the estimated GHG emissions and other criteria provided by GHG Protocol Scope 3 Standard (Version 2011, p. 61 and 65-68) or EN ISO 14064-1:2018 Annex H.3.2, such as financial spend… [and/or] influence …".
- AR 46 (i) requires that undertakings "disclose a list of Scope 3 GHG emissions **categories included in and excluded** [emphasis added] from the inventory with a **justification** [emphasis added] for excluded Scope 3 categories;"

Application Requirement (AR) 51 specifies that: "If it is **material** [emphasis added] for the undertaking's Scope 3 ***emissions***, it shall disclose the GHG emissions from purchased cloud computing and data centre services as a subset of the overarching ***Scope 3 category*** 'upstream purchased goods and services'."

4.4 IFRS

IFRS S2 Climate-related Disclosures is a standard that sets out requirements for entities to disclose information about climate-related risks and opportunities. "The objective of IFRS S2 Climate-related Disclosures is to require an entity to disclose information about its climate-related risks and opportunities that is useful to primary users of general purpose financial reports in making decisions relating to providing resources to the entity" (Paragraph 1).

The IFRS requires that entities consider scope 3 emissions for all categories specified in the GHG Protocol *Scope 3 Standard*.

- As per B32: "… an entity shall disclose information about its Scope 3 greenhouse gas emissions to enable users of general purpose financial reports to understand the source of these emissions. The entity shall consider its entire value chain (upstream and downstream) and shall consider all 15 categories of Scope 3 greenhouse gas emissions [and]… [i]n accordance with paragraph 29(a)(vi), the entity shall disclose which of these categories are included in its Scope 3 greenhouse gas emissions disclosures" (IFRS S2 B32).
- As per paragraph 29(a)(vi)(1) entities shall disclose : "the categories included within the entity's measure of Scope 3… emissions… in accordance with the *Scope 3 categories* described in the *Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard* (2011); and[15] (2): "additional information about the entity's category 15 … emissions or those associated with its investments (financed emissions), if the entity's activities include asset management, commercial banking or insurance …"

[14] ISO GHG inventory categories (from 5.2.4 and Annex B): (a) direct GHG emissions and removals ["**scope 1**"]; (b) indirect GHG emissions from imported energy ["scope 2" + "category 3"], (c)… from transportation ["category 4/9"], (d)… from products used by organization ["category 1" + "category 2" + "category 8"], (e)… associated with the use of products from the organization ["category 10" + "category 11" + "category 12" + "category 13" + "category 15"], and (f)… from other sources.

[15] Regarding scope 3 emission categories, B33: "For the avoidance of doubt, regardless of the method an entity uses [emphasis added] to measure its greenhouse gas emissions, the entity is required to disclose the categories [emphasis added] included within its measure of Scope 3 greenhouse gas emissions as described in paragraph 29(a)(vi)(1)".

Following IFRS, exclusion is subject to materiality. An entity shall disclose material information[16], however, the IFRS standard does not set a numerical threshold by which entities can determine materiality vs. immateriality. Instead, it states that "Materiality is an entity-specific aspect of relevance, based on the nature or magnitude, or both, of the item to which the information relates" (IFRS S1 14). Note that the IFRS S2 applies only financial materiality and *not* double materiality (which includes both financial and non-financial or impact materiality), the latter being what the ESRS specifies.

A company's GHG measurement and reporting includes only information likely to result in useful information for users of general-purpose financial reports. Additionally, IFRS provides industry-based guidance to define material metrics categories while also stating that the guidance is not exhaustive and an entity shall make its own judgement.[17]

In addition to specifying reliance on the GHG Protocol *Scope 3 Standard* in Paragraph 29*,* the IFRS specifies that an entity shall:

> "measure its greenhouse gas emissions in accordance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004) unless required by a jurisdictional authority or an exchange on which the entity is listed to use a different method for measuring its greenhouse gas emissions" (Paragraph 29(a)(ii)).

> "apply the requirements in the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004) only to the extent that they do not conflict with the requirements in this [IFRS S2] Standard", (Paragraph B23)

In its staff paper from September 2024[18], IFRS clarifies on the question of reconciling optionality set in the Scope 3 Standard and the requirements of IFRS S2:

> "IFRS S2 requires that the determination of what Scope 3 greenhouse gas emissions to include is based on relevance to an entity's value chain and materiality as required by ISSB Standards. In summary, an entity is required to consider all 15 categories of Scope 3 greenhouse gas emissions, as described in the GHG Protocol Corporate Value Chain Standard and disclose which of the categories are included in an entity's measure of Scope 3 greenhouse gas emissions." (p. 9)

4.5 Securities and Exchange Commission (SEC) Climate-Related Disclosure

The SEC does not require registrants to disclose Scope 3 emissions, encouraging voluntary reporting but not providing methodological guidance. F Reporting of scopes 1 and 2is required based on materiality[19] of the information for investors voting or decision-making, for understanding of transitional risks ("potential impact on entity's business, results of operations, or financial condition in the short- or long-term", SECURITIES AND EXCHANGE

[16] "In the context of sustainability-related financial disclosures, information is material if omitting, misstating or obscuring that information could reasonably be expected to influence decisions that primary users of general purpose financial reports make on the basis of those reports, which include financial statements and sustainability-related financial disclosures and which provide information about a specific reporting entity." (IFRS S1 18)

[17] IFRS S2 Accompanying Guidance on Climate-related Disclosures, IB7.

[18] Staff paper Agenda reference: 1, Transition Implementation Group on IFRS S1 and IFRS S2. September 2024. Reporting on other questions submitted. Microsoft Word - AP1 September 2024 Reporting on other questions submitted_Final

[19] *See* 17 CFR 229.1505(a)(1). To the extent Scope 1 and/or 2 emissions disclosure are required under the final rules, 17 CFR 230.409 or 17 CFR 240.12b-21, which provide accommodations for information that is unknown and not reasonably available, would be available if its conditions are met.

665 COMMISSION 17 CFR 210, 229, 230, 232, 239, and 249 RIN 3235-AM87 The Enhancement
666 and Standardization of Climate-Related Disclosures for Investors, p.246).

667

668 ## 4.6 Global Reporting Initiative (GRI)

669 GRI base for reporting is tied to the concept of materiality. In this regard, Scope 3 emissions
670 (and possibly per subcategory) would be accounted for and reported upon evaluating this
671 topic as material (i.e. topics that "represents the organization's most significant impacts on
672 the economy, environment, and people, including impacts on their human rights", GRI 3
673 Material Topics 2021). The GRI provides the general guide for materiality assessment
674 (Standard GRI 3 – Material Topics, 2021).

675 *GRI 305 Emissions 2016* refers to accounting of scope 3 emissions in compliance with the
676 GHG Protocol *Scope 3 Standard* or ISO 14064. Scope 3 reporting is based on relevance and
677 activities (categories) for inclusion can be assessed based on the following relevance criteria
678 (GRI 305, p.14):

679 • Contribute significantly to the organization's total anticipated other indirect (Scope 3)
680 GHG emissions;
681 • Offer potential for reductions the organization can undertake or influence
682 • Contribute to climate change-related risks, such as financial, regulatory, supply
683 chain, product and customer, litigation, and reputational risks;
684 • Are deemed material by stakeholders, such as customers, suppliers, investors, or civil
685 society;
686 • result from outsourced activities previously performed in-house, or that are typically
687 performed in-house by other organizations in the same sector;
688 • have been identified as significant for the organization's sector;
689 • meet any additional criteria for determining relevance, developed by the organization
690 or by organizations in its sector."

691 ## 4.7 CDP

692 CDP acknowledges a variety of standards, protocols, and methodologies which companies
693 may rely on or conform with to account for the GHG emissions. CDP makes no judgement
694 on the methodologies but expects reporting companies to follow the best practice of and
695 observe aspects "similar to the GHG Protocol" (CDP Module 7, v1.0 of May 2024, p.23). The
696 CDP questionnaire uses the terminology of the GHG Protocol, including category titles, for
697 information on scope 3 activities and boundaries of scope 3 categories.

698 CDP allows for exclusion of emissions from accounting, citing not only relevance but a
699 variety of possible reasons (ibid, Q7.4), including incomplete information, structural
700 changes, out/in-sourcing, unreliable information. The exclusions in that case need to be
701 listed and justified, their relevance indicated and potential percentage of the total estimated.
702 In the additional guidance, CDP refers to GHG Protocol's concept of relevance for
703 determining exclusions. While no significance or materiality thresholds are provided, the
704 additional information cites 95% of the inventory by size as relevant (ibid, p. 32). This may
705 imply a 5% de minimis threshold for exclusion across an entire scope 3 inventory. The
706 guidance emphasizes that this shall not become the only indication of relevance, as well as
707 should not be "materiality" by financial impacts. Some categories are indicated as obligatory
708 for reporting per sector[20].

[20] See CDP Module 7, p.45, and CDP-technical-note-scope-3-relevance-by-sector.pdf

4.8 Partnership for Carbon Accounting Financials (PCAF)

The PCAF Financed Emissions Standard (2020) (first edition) received the Built on GHG Protocol mark. It is consistent with the GHG Protocol *Scope 3 Standard.* Revision in the second edition (2022) has not been reviewed by the GHG Protocol, nor have *Facilitated Emissions Standard* (Part B) or *Insurance-Associated Emissions Standard* (Part C).

Addressing exclusions in the *Financed Emissions Standard* (2022), PCAF states that financial institutions shall measure and report all of their relevant emissions for each type of activity and class, and all exclusions shall be justified (PCAF, 2022[21], p. 39). Potential justifications criteria for exclusion include: data unavailability, insignificant size relative to total financed emissions, and unavailable calculation methodology (p. 124). No specific de minimis or materiality threshold is specified. Financial institutions shall report the percentage of the financial value of the assets included in the reporting.

4.9 E-liabilities Proto-Standard

A proto-standard for carbon accounting and auditing using the E-liability method[22] was published in 2024, to further develop and support the e-liabilities approach.

Principle 1 of the proto-standard states that "An entity, […], shall record on its environmental ledger all material, direct emissions of GHGs using direct measurement or calculation." Principle 3 states that "Except where immaterial, an entity shall record on its environmental ledgers the emissions embedded in all acquired units of goods and services as reported by its suppliers upon legal economic transfer."

The proto-standard further explains that information is considered material "if omitting, misstating, or obscuring it could be expected to influence the decisions that a reasonably informed person would make on the basis of that information." (p. 11) The definition of materiality is left to the judgement of a practitioner (and/or verifier). The authors however highlight that the text of the definition is deliberately agnostic to the user identity, requiring as a minimum consideration of the potential customers, as well as consideration of jurisdictional requirements.

[21] PCAF (2022) The Global GHG Accounting and Reporting Standard, Part A. Second edition.
[22] Ramanna, K. et al. A proto-standard for carbon accounting and auditing using the E-liability method v. 1.5.4, The E-liability Institute, 2024

5. Summary of relevant research

5.1 Exclusions and underreporting

Blanco et al (2016):[23] concluded that in 2013 large U.S. companies on average reported less than 25% of their upstream emissions. In a sample of technology companies, Klassen and Stoll (2021) find that the disclosed emissions data omit half of the total emissions (Figure 2), although stemming from very few categories.

Klassen and Stoll (2021)[24]**:** found that "companies report different emission levels on different channels, fail to meet the minimum boundaries of emitting activities, or omit relevant scope 3 categories entirely." They detail "reporting inconsistency, boundary incompleteness, and activity exclusion" as the "three sources of error in publicly disclosed scope 3 emissions". , Regarding boundary incompleteness, "most companies cannot quantify the emissions along their entire supply chain with primary data only, which results in boundary incompleteness if the gaps are not filled with secondary data". Finally, regarding activity exclusion, "reporting companies may neglect relevant scope 3 activities entirely." (Klassen and Stoll, 2021) assert that: "In light of the current underreporting, it seems unlikely that the current multitude of voluntary guidelines will trigger more accurate carbon disclosure in the future" and believe that "[s]tandardized and binding regulations with unambiguous guidelines might be more effective."

Nguyen et al (2023)[25]: note that companies' scope 3 reporting is generally incomplete, and argue that significant underreporting can be traced, among other reasons, to companies cherry picking which categories to report. Gillenwater (2022)[26] highlights that the principle of relevance in GHG accounting tends to be vague in practical application and may be one of the reasons for inconsistencies in omissions.

At the same time, Patchell (2018)[27] notes six factors impacting measurement and management of emissions throughout the value chain: transaction costs, power, responsibility allocation, uncertainty, location contingency and production costs. He argues that these factors result in a disparity between what is theoretically possible and practically feasible in terms of performing scope 3 accounting and reporting.

[23] Blanco, C., Caro, F. & Corbett, C. J. The state of supply chain carbon footprinting: analysis of CDP disclosures by US firms. J. Clean. Prod. 135, 1189–1197 (2016).
[24] Klaaßen, Lena, and Christian Stoll. "Harmonizing corporate carbon footprints." Nature communications 12, no. 1 (2021): 1-13.
[25] Nguyen, Quyen, Ivan Diaz-Rainey, Adam Kitto, Ben I. McNeil, Nicholas A. Pittman, and Renzhu Zhang. "Scope 3 emissions: Data quality and machine learning prediction accuracy." *PLOS Climate* 2, no. 11 (2023): e0000208.
[26] Gillenwater, Michael. "Examining the impact of GHG accounting principles." *Carbon Management* 13, no. 1 (2022): 550-553.
[27] Patchell, Jerry. "Can the implications of the GHG Protocol's scope 3 standard be realized?." Journal of Cleaner Production 185 (2018): 941-958.

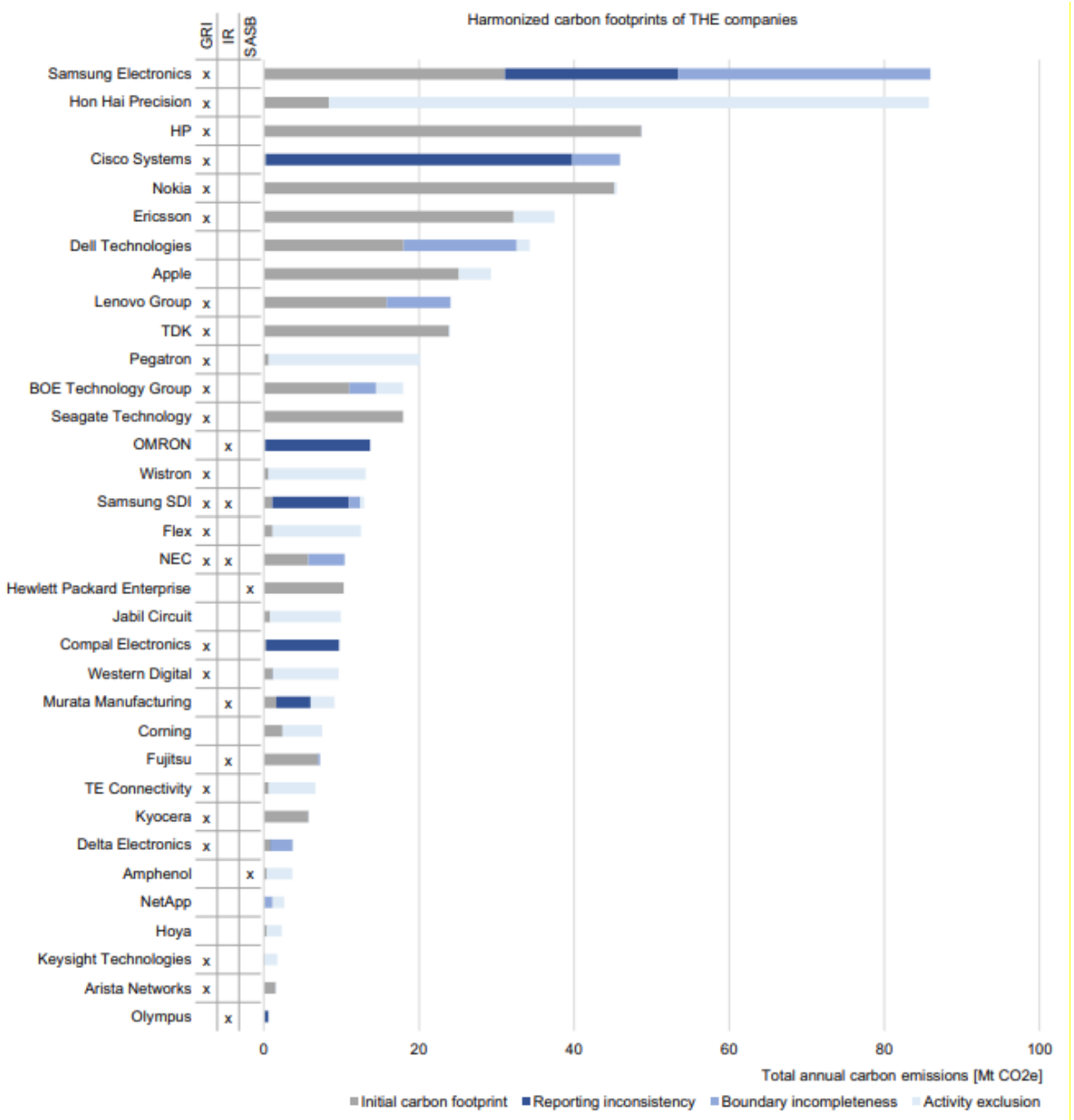

Figure 2. Harmonized carbon footprints of technology hardware and equipment companies. Klaassen and Stoll (2021)

5.2 Justified exclusions

Following the requirements of the *Scope 3 Standard*, any exclusions must be disclosed and justified. However, the guidance can lead to diverse interpretations. In a survey conducted by SBTi[28], over a quarter of respondents indicated that identifying material categories for inclusion is a barrier to baselining. Respondents indicated the following criteria they apply to define relevant emissions:

- Share of emissions represented (75% of respondents)

[28] Science Based Targets initiative (SBTi). (2024). Aligning corporate value chains to global climate goals. SBTi Research: Scope 3 Discussion Paper. SBTi Aligning Corporate Value Chains Scope 3 Discussion Paper (sciencebasedtargets.org)

- GHG accounting requirements (46%)
- Data availability (25%)
- Requirements of disclosure frameworks (12%).

Chapter 6 of the *Scope 3 Standard* provides several examples of justified exclusions. Guidance from the Scope 3 Standard, p. 60, is copied below, with examples of factors for possible exclusions provided in red:

> Companies should strive for completeness, but it is acknowledged that accounting for all scope 3 emissions may not be feasible [infeasibility]. Some categories may not be applicable to all companies [non-applicability]. For example, some companies may not have leased assets or franchises. In such cases, companies should report zero emissions or "not applicable" for any categories that are not applicable.
>
> "In some situations, companies may have scope 3 activities, but be unable to estimate emissions due to a lack of data or other limiting factors [infeasibility; data availability or other factors]. For example, companies may find that based on initial estimates, some scope 3 activities are expected to be insignificant in size (compared to the company's other sources of emissions) [magnitude of emissions] and that for these activities, the ability to collect data [data availability] and influence GHG reductions [influence] is limited. In such cases, companies may exclude scope 3 activities from the report, provided that any exclusion is disclosed and justified."
>
> Companies should follow the principles of relevance, completeness, accuracy, consistency, and transparency when deciding whether to exclude any activities from the scope 3 inventory [GHG accounting and reporting principles]. Companies should not exclude any activity that would compromise the relevance of the reported inventory. (See table 6.1 for a list of criteria for determining relevance.) Companies should ensure that the scope 3 inventory appropriately reflects the GHG emissions of the company, and serves the decision-making needs of users, both internal and external to the company [relevance].
>
> In particular, companies should not exclude any activity that is expected to contribute significantly to the company's total scope 3 emissions [magnitude of emissions]. (See section 7.1 for guidance on prioritizing emissions.)
>
> Companies are required to disclose and justify any exclusions in the public report (see chapter 11).

Example from box 6.1 (p. 61) of the standard:

> "After mapping its value chain, a company uses initial GHG estimation methods to estimate the emissions from the various spend categories within category 1 (Purchased goods and services). The company finds that emissions from production-related procurement are significant compared to its other sources of scope 3 emissions [magnitude of emissions]. The company determines that emissions from non-production-related procurement are difficult to calculate [infeasibility; difficulty to calculate] and are not expected to contribute significantly to total scope 3 emissions [magnitude of emissions]. The company uses more accurate methods to calculate emissions from production-related procurement, but decides to exclude emissions from non-production-related procurement. The company discloses and justifies the exclusion of non-production-related procurement based on limited data

availability [data availability] and its expected insignificant contribution to total scope 3 emissions [magnitude of emissions].

From the guidance and example given, the following factors are listed as potential reasons for excluding scope 3 activities from the inventory boundary:

- non-applicability (if so, report zero or N/A)
- infeasibility (data availability, difficulty to calculate, or other factors)
- magnitude of emissions
- influence
- relevance (with criteria for determining relevant scope 3 activities listed in table 6.1)

These factors can generally be classified in one of two grounds for exclusion:

1. Emissions are not relevant (by the criteria of magnitude, influence or other relevance criteria)
2. Data is not available or emissions are difficult to calculate

Necessary to note that exclusion of relevant emissions leads to an incomplete inventory. According to the GHG principle of completeness, companies shall "account for and report on all GHG emission sources and activities within the inventory boundary and disclose and justify any specific exclusions" (Scope 3 Standard, p. 23). The guidance provided on the completeness principle explains that

> "Companies should ensure that the scope 3 inventory appropriately reflects the GHG emissions of the company, and serves the decision-making needs of users, both internal and external to the company." (ibid, p. 24).

According to the GHG principle of 'relevance,' the inventory should appropriately reflect the GHG emissions of the company and serve the decision-making needs of internal and external stakeholders (ibid, p. 23). Thus, an inventory cannot be complete if relevant emissions are excluded from it.

The update process of the suite of GHG Protocol corporate standards intends to create a harmonized set of standards, which is likely to include harmonized compliance requirements. The Scope 3 TWG is considering questions around relevance and completeness (i.e., point 1 in the list of factors above). The Corporate Standard TWG will consider whether an inventory can, in certain cases, conform with the *Corporate Standard* and/or the *Scope 3 Standard* even if it excludes relevant data (due to it being unavailable, low quality (i.e., point 2 in the above list), and/or other possible reasons as determined by said TWG.

5.3 Materiality and de minimis

The *Corporate Standard* defines two terms that are sometimes confused or misinterpreted[29].

Materiality, the concept that individual or aggregation of errors, omissions and misrepresentations could affect the GHG inventory and could influence the intended users' decisions (*Scope 3 Standard*, p.139). This concept is used in the context of verification

[29] Another term closely connected to them is significance threshold, a threshold used to trigger base year recalculation. Such threshold shall be established by the company in the emissions recalculation policy; it is not set up on a particular value, and as a matter of fact can be defined qualitatively (Scope 3 Standard, p. 104). Significance threshold is further considered in the discussion paper on base year recalculation.

(Chapter 10 of the Corporate Standard), and assurance (Chapter 10.5 of the *Scope 3 Standard*). There, a material discrepancy is an error (for example, from an oversight, omission or miscalculation) that results in a reported quantity or statement being significantly different to the true value or meaning. The materiality threshold can be defined by the assurer or by the assurer with the reporting company, in a quantitative or qualitative manner. The *Scope 3 Standard* does not provide values but refers to the materiality benchmark usually defined as a percentage of the inventory. The *Corporate Standard* provides a rule of thumb of 5%, although specifies that the verifier needs to assess the value in the full context within which the information is presented. If the materiality threshold is exceeded, the errors shall be corrected. It is emphasized that uncertainty is a separate concept from materiality because it is not a known error, but rather an indicator of how well the data represents the processes in the inventory (*Scope 3 Standard*, p. 116). According to the *Corporate Standard*, understanding how verifiers apply a materiality threshold enables companies to more readily establish whether the omissions of an individual source or activity from their inventory is likely to raise questions of materiality. This statement, while not intended to set up a cut-off rule, may guide entities towards deliberate exclusion of emissions.

Taking this meaning of materiality, the parallels that other frameworks make between materiality, relevance and significance become evident, including when defining which emissions to report. In a way, materiality is a bridge between two relevance criteria: emissions magnitude and importance for stakeholders in their decision making.

De minimis emissions, a permissible quantity of emissions that a company can leave out of its inventory. While the *Corporate Standard* explicitly specifies that a materiality threshold is not the same as de minimis emissions (Corporate Standard, p. 70), the concept is surrounded by a lot of confusion. In consideration of the principle of completeness (p. 6), the *Corporate Standard* specifies that a minimum emissions accounting threshold (e.g. stating that a source not exceeding a certain size can be omitted from the inventory), is often referred to as a materiality threshold. In practice the line between them in GHG accounting policies of entities might be even more blurry, e.g. due to appointed equal threshold value.

De minimis in its nature is aimed at reducing the effort and resources spent on collecting high quality data when the yield of these efforts is very unlikely to be of significance. Life cycle assessment (LCA) frameworks often refer to it as "cut-off procedures" or "cut-off criteria" and may set up quantitative thresholds for them. For example:

- The Product Environmental Footprint framework[30] sets up a cut-off as below 3% (cumulatively of all excluded elementary or process flows) of the material and energy flows, as well as the environmental impact for each impact category[31].
- Product Environmental Profile (PEP) Ecopassport rules[32] stipulate that a flow can be cut off from the inventory if it is less than or equal to 5% of the mass of the reference product, is less than or equal to 5% of the total use of primary energy

[30] COMMISSION RECOMMENDATION (EU) 2021/2279 of 15 December 2021 on the use of the Environmental Footprint methods to measure and communicate the life cycle environmental performance of products and organisations

[31] The framework includes a total of 16 categories of environmental impact in its method, including climate change, acidification, ionizing radiation, etc.

[32] PEP ecopassport® PROGRAM PCR Product Category Rules for Electrical, Electronic and HVAC-R Products PCR-ed4-EN-2021 09 06 Produce a LCA (pep-ecopassport.org)

during the life cycle of the reference product, and less or equal to 5% of the total life cycle environmental impacts of the reference product.

The paradox of de minimis is that, if it can be proven that the emissions from an activity are below a certain value, an estimate of the emissions was achieved, in which case the rationale for exclusion is questionable.

Some frameworks navigate this paradox by using expert judgement on expected environmental impacts, including listing the materials and flows that cannot be cut-off (e.g. in the PEP Ecopassport), or leaving the judgement on a practitioner's discretion, with potential verification.

Another approach would be to make a rough highly conservative estimation to prove neglectable impacts, and exclude the flow on the basis of wanting to sustain inventory quality.

Lastly, mass and / or energy balances may be used to justify exclusion of certain flows. Considering the example of apartment complex construction, Kim et al (2021)[33] demonstrated the correlation between the cut-off value based on mass flows and the omission of GHG emissions. They defined that in the considered cases the 2.5% mass-flow cut-off value would result in covering 95% of the GHG emissions (in GWP100a), while 5% and 10% cut-off would result in coverage of only 91% and 85% of emissions respectively.

In the context of boundary setting and justification of exclusions, two questions can be considered:

1. Should materiality have a default maximum allowable value with regards to magnitude and relevance?
2. Should de minimis be introduced into the Scope 3 Standard as an allowable omission? And if yes, how?

5.4 Findings from CDP reporting

The CDP Technical Note: Relevance of Scope 3 Categories by Sector[34] provides an overview of reported relevance of scope 3 categories by sector.

Preliminary analysis shows that:

1. A considerable share of companies in the sample do not (yet) calculate or report emissions in categories that said companies assessed to be relevant
2. The majority of categories that companies find to not be relevant are neither calculated nor reported
3. A majority of companies of in a given sector report a category as relevant while the share of the category in the total reported scope 1+2+3 inventory is below 5% or even 1%[35]. Most often, that applies to categories 3, 4, 5, 6, 7, and 9.

[33] Kim, R.; Lim, M.-K.; Roh, S.; Park, W.-J. Analysis of the Characteristics of Environmental Impacts According to the Cut-Off Criteria Applicable to the Streamlined Life Cycle Assessment (S-LCA) of Apartment Buildings in South Korea. Sustainability 2021, 13, 2898. https:// doi.org/10.3390/su13052898

[34] CDP (2024) CDP Technical Note: Relevance of Scope 3 Categories by Sector CDP-technical-note-scope-3-relevance-by-sector.pdf

[35] Based on the reported values, i.e. the correlation cannot be

4. At the same time there are cases where the majority of companies in a given sector report a category to be not relevant or do not report it to be relevant[36], while the share of the category in the total reported scope 1+2+3 inventory is above 5%. Most of these cases refer to categories 10, 11 or 12.

These findings demonstrate the complexity of the concept of relevance in GHG accounting and that scope of the issue goes beyond simple magnitude of emissions. It is likely that the criterion of influence plays a significant role, as the categories mentioned in point 3 are mostly those in direct control of the reporting company, and the categories mentioned in point 4 are those downstream of the reporting company, i.e. outside of the supplier network.

Using the values disclosed by CDP (ibid), a theoretical modelling of the impact of choosing a reporting threshold on the total inventory representation was conducted to investigate options of a quantified threshold of relevance (by size). Several options were applied to the average inventory composition by sectors as reported to CDP in 2021[37]:

- Total emissions of a category are below 1% of the total scope 1, 2, and 3, and are omitted
- Total emissions of a category are below 3% of the total scope 1, 2, and 3, and are omitted
- Total emissions of a category are below 5% of the total scope 1, 2, and 3, and are omitted
- Total emissions of a category are below 1% of the total scope 3, and are omitted
- Total emissions of a category are below 3% of the total scope 3, and are omitted
- Total emissions of a category are below 5% of the total scope 3, and are omitted
- Total emissions of a category are below 1% of the total scope 1, 2, and 3, and are omitted cumulatively up to 5% of the total scope 1, 2 and 3
- Total emissions of a category are below 3% of the total scope 1, 2, and 3, and are omitted cumulatively up to 10% of the total scope 1, 2 and 3
- Total emissions of a category are below 5% of the total scope 1, 2, and 3, and are omitted cumulatively up to 10% of the total scope 1, 2 and 3

Based on that modelling, a percentage of inventory potentially omitted from accounting and/or reporting was calculated. The table below presents what percentage of inventory can be potentially underreported if a certain threshold is applied. The cells are color-coded, highlighting in bright red all omissions above 10%.

Table 2. Potential inventory omission based on the magnitude threshold options

Sector	1% total	3% total	5% total	1% scope 3	3% scope 3	5% scope 3	1% up to 5%	3% up to 10%	5% up to 10%
Agricultural commodities	0,95	6,17	13,51	0,95	6,17	13,51	0,95	7,29	7,29
Capital goods	1,67	3,31	3,31	1,67	3,31	3,31	3,13	4,77	4,77
Cement sector	0,47	3,14	10,01	0,47	0,47	0,47	0,47	3,14	6,55
Chemicals	1,86	5,22	11,46	1,86	5,22	11,46	1,86	5,22	8,26

[36] E.g. either report it to be not relevant or not evaluated
[37] CDP-technical-note-scope-3-relevance-by-sector.pdf

Coal	1,12	1,12	1,12	1,12	1,12	1,12	1,12	3,29	3,29
Construction	2,62	6,26	6,26	2,62	6,26	6,26	2,62	7,6	7,6
Electric utilities	1,52	5,79	10,18	1,52	1,52	5,79	1,52	7,05	7,05
Financial	0,14	0,14	0,14	0,14	0,14	0,14	0,16	0,16	0,16
Food, beverage & tobacco	2,82	10,12	20,43	2,82	7,35	20,43	2,82	7,35	7,35
Metals & mining	1,1	9,41	12,55	1,1	9,41	12,55	1,1	8,66	8,66
Oil & gas	1,78	4,49	8,08	1,78	4,49	8,08	1,78	5,66	9,25
Paper & forestry	1,11	7,98	17,7	1,11	2,34	5,01	1,11	7,98	7,98
Real estate	2,27	6,86	10,09	2,27	6,86	10,09	2,27	8,66	8,66
Steel	1,25	8,09	11,42	1,25	1,25	2,49	1,25	8,09	8,09
Transport OEMS	2,97	2,97	2,97	2,97	2,97	2,97	3,75	4,93	4,93
Transport services	2,63	5,2	8,65	2,63	2,63	2,63	2,63	5,2	8,3

The difference between the omissions can be significant. For example, for agricultural commodities, a threshold of 1% brings the omissions to 0,95% of the inventory, while a threshold of 5% results in omission of 13,5% of the inventory. The Paper and forestry sector, as well as the food, beverage and tobacco sector see discrepancies of 16% - 18%. This highlights the potentially significant discrepancies in boundaries and reporting between organizations if they establish magnitude thresholds themselves. On the other hand, this choice allows companies to set up a threshold that suits their own objectives.

The introduction of a de minimis threshold would mean that selected activities and their parts can be excluded from the inventory if their estimated magnitude is below certain value. The main difference from the relevant magnitude threshold is the omission of particular "entry lines" rather than a full category. For example, omission of emissions associated with office supplies in category 1 when they are estimated to be far below a certain share of the total procurement emissions.

Theoretical modelling of a de minimis threshold is less tangible if such a threshold does not have a cumulative limit. Preparing an inventory may result in an incredibly high number of entries, thus a non-cumulative limitation can result in practically any underreporting value. Setting up de minimis with a cumulative limitation however, will result in the equal maximum underreporting value. For example, setting a de minimis to be up to 1% of the total emissions per category will result in up to 1% underreporting of the inventory.

6. Options under consideration

The following section considers potential updates related to boundary setting.

Following the current requirements, the accounting and reporting of a scope 3 inventory shall be based on the five GHG Protocol accounting and reporting principles. Two key principles to consider for this discussion paper are completeness and relevance. As per the *Scope 3 Standard*, reporting organizations should: "Account for and report on all GHG emission sources and activities within the inventory boundary" to satisfy completeness (p.23), and "Ensure the GHG inventory appropriately reflects the GHG emissions of the company and serves the decision-making needs of users – both internal and external to the company" to satisfy relevance (p.23). The options outlined below stem from refining the definition of a complete scope 3 inventory that includes all relevant value chain emissions.

Table 3 below presents the questions and the options considered in this section to address the boundary setting challenges.

Table 3. Proposed questions and associated options to be considered on the topics of boundaries and justification of exclusions for scope 3 inventories.

Question	Options
1. How should the relevance principle be considered in exclusion of activities	Option 1A. Maintain current language: relevance is at the discretion of the preparer Option 1B. Relevance is required Option 1C. Relevance is required based on the criterion of magnitude of emissions only
2. How do the relevance criteria need to be followed to fulfill relevance?	Option 2A. Maintain current language: Relevance assessment is at the preparer's discretion Option 2B. Relevance is defined as meeting at least one of the relevance criteria
3. Should a magnitude threshold be defined for determining relevance?	Option 3A. Maintain current language: relevance of emissions size is at the discretion of the preparer Option 3B. Magnitude threshold is required to be defined at discretion of preparer Option 3C. Magnitude threshold is defined by the Scope 3 Standard Option 3D. Require all scope 3 emissions to be accounted for regardless of magnitude
4. Should the influence criterion be refined for determining relevance?	Option 4A. Maintain the current definition of influence Option 4B. Define a list of influence pathways Option 4C. Define the level of influence
5. Should the guidance on exclusion of downstream categories for intermediate products be revised?	Option 5A. Maintain the current language Option 5B. Editorial change to facilitate interpretation Option 5C. Editorial change to facilitate interpretation, with removal of the provision to include or exclude all downstream categories Option 5D. Remove intermediate products as a special case

Question	Options
6. Should "de minimis" be formally defined in the Scope 3 Standard?	Option 6A. Maintain the current language: no de minimis definition Option 6B. Do not allow the application of de minimis Option 6C. Permit application of de minimis, with the threshold defined by the preparer Option 6D. Permit application of de minimis, with the threshold defined by the Scope 3 Standard
7. Should the minimum boundaries of scope 3 categories be revised to require currently optional activities?	Option 7A. Maintain optionality of specific activities Option 7B. Optionality is removed, with all activities included in the minimum boundary Option 7C. Updates to optionality of specific activities is considered on a case-by-case basis
8. Should organizations be required to carry out a hotspot analysis as a step towards setting the inventory boundary?	Option 8A. Maintain recommendation for hotspot analysis Option 8B. Require hotspot analysis

In the following sections, each question is considered separately with presentation of the options, example standard text where relevant, and preliminary comparison using the GHG Protocol decision-making criteria. However, the questions are intrinsically connected, and some of the options identified for the questions may be not compatible. Question number 1 is the most connected with other questions.

1. How should the relevance principle be considered in exclusion of activities

The principle of completeness states that companies should "account for and report on all GHG emission sources and activities within the inventory boundary" (*Scope 3 Standard*, p. 23), and clarifies further at p. 24 that companies "should ensure that their scope 3 inventory appropriately reflects the GHG emissions of the company, and serves the decision-making needs of users, both internal and external to the company" (*Scope 3 Standard*, p. 24). This clarification specifically intertwines with the principle of relevance (*Scope 3 Standard*, p. 23) and the criteria of relevance listed in Chapter 6. The definition of relevance (p. 24) and the embedding of relevance considerations in chapter 6 reinforce this connection.

Generally, it is a requirement of the Standard that the accounting and reporting shall be based on the accounting principles. However, when it comes to decisions on exclusions of activities and emissions, the current guidance uses recommendation language ("should follow the principles"). Thus, companies may exclude a broad range of emissions at their discretion. Refinement of the connection between completeness and relevance will be considered to clarify the requirements of a complete inventory.

Scope 3 accounting often presents a trade-off between the principles of completeness and accuracy. While companies "should balance tradeoffs between principles depending on their individual business goals" (p.24), they are not free to omit one or another principle, and the tradeoff should be diminishing over time.

Option 1A. Maintain current language: Relevance is at the discretion of the preparer

This option would maintain the current language in the *Scope 3 Standard*, which gives companies broad discretion to determine which emissions are relevant. The specific language in the *Scope 3 Standard* is as follows:

- Companies **shall** account for all scope 3 emissions and disclose and justify any exclusions. (p. 59)
- Companies **may** exclude scope 3 activities from the inventory, provided that any exclusion is disclosed and justified. (p. 60)
- Companies **should** follow the principles of relevance, completeness, accuracy, consistency, and transparency when deciding whether to exclude any activities from the scope 3 inventory. (p. 60)
- Companies **should not** exclude any activities from the scope 3 inventory that would compromise the relevance of the reported inventory. (p. 60)
- Companies **should** ensure that the scope 3 inventory appropriately reflects the GHG emissions of the company, and serves the decision-making needs of users, both internal and external to the company (p. 60)

Option 1B. Relevance is required (using "shall" wording throughout the *Standard*)

In this option, it would be required to follow the principle of relevance for a complete inventory definition and for the justification of exclusions.

This change would in some ways be a correction because another part of the Scope 3 Standard (Chapter 4) states the following: "GHG accounting and reporting of a scope 3 inventory shall be based on the following principles: relevance, completeness, consistency, transparency, and accuracy." (p. 23). At a minimum, this statement in chapter 6 should be brought into alignment with the requirement in chapter 4.

Example text for Option 1B

Changes to the current Scope 3 Standard text are noted with strikethrough (deletions) and capitalization (additions). Key words are in bold.

- "Companies **shall** account for all scope 3 emissions as defined in this standard and disclose and justify any exclusions.
- Companies **may** exclude scope 3 activities from the inventory, provided that any exclusion is disclosed and justified. Companies **~~should~~ SHALL** follow the principles of relevance, completeness, accuracy, consistency, and transparency when deciding whether to exclude any activities from the scope 3 inventory.
- Companies **~~should~~ SHALL not** exclude any activities from the scope 3 inventory that would compromise the relevance of the reported inventory."

Implications of Option 1B

Changing the consideration of principles from a recommendation to a requirement may require companies to either report more categories or to provide a more detailed justification for exclusions. In the latter case, companies would need to prove that the exclusion of categories or activities does not compromise the principle of relevance. From that perspective, an inventory preparer would have to carry out an analysis of relevance for comprehensive activity mapping. The preparer may further need to set up and/or use quantitative or qualitative thresholds for each of the criteria (i.e., size, influence, risk, stakeholders, outsourcing, sector guidance, other), in order to judge the relevance of each

of the considered emissions. It may be argued that the size/magnitude may be one of the most burdensome and time-intensive criteria for estimation, depending on which screening methods are used. To assess magnitude, some quantitative activity data is needed, and emissions must be calculated. A pre-screening approach could be defined (e.g., high-level estimation, hot spot analysis of all activities). The hotspot analysis approach is explored further in Question 8.

Table 4. Potential relevance analysis

Criteria	Analysis that could be conducted	Type of threshold
Size	Magnitude estimation	Quantitative or qualitative
Influence	Analysis of influence on reductions	Qualitative or quantitative
Risk	Risk exposure analysis	Qualitative
Stakeholders	Stakeholder analysis Analysis of importance of emissions for stakeholders	Qualitative
Outsourcing	Business processes analysis	Binary: yes/no
Sector guidance	Various	Quantitative or qualitative
Other	Various	Quantitative or qualitative

Option 1C. Relevance is required based on the criterion of magnitude of emissions only

In this option, relevance considerations in exclusion of activities would be partially required, focusing on the size (magnitude) criterion. The main difference of the option 1C from the option 1B is the extend to which companies will have to take relevance criteria in consideration. In option 1C, preparers would not be able to exclude activities found relevant based on theirs magnitude (size). Application of other relevance criteria is left on the discretion of preparers.

Editorial note: current language utilizes "magnitude" and "size" in defining the relevance criterion interchangeably. A term for emissions relevant in their magnitude (relevant by criterion of size), may be created if the option is chosen (e.g. "significant emissions").

Example text for Option 1C

An example text is given below. Changes to the current Standard text are noted with strikethrough (deletions) and capitalization (additions). Key words are emphasized in bold.

- "Companies **shall** account for all SIGNIFICANT scope 3 emissions and disclose and justify any exclusions.
- Companies **may** exclude scope 3 activities from the inventory, provided that any exclusion is disclosed and justified.
- Companies **should** follow the principles of relevance, completeness, accuracy, consistency, and transparency when deciding whether to exclude any activities from the scope 3 inventory.
- Companies ~~**should**~~ **SHALL not** exclude any activity that is expected to contribute significantly to the company's total scope 3 emissions.
- SIGNIFICANCE IN THIS CASE IS DETERMINED BASED ON THE EXPECTED MAGNITUDE OF SCOPE 3 EMISSIONS FROM ONE ACTIVITY RELATIVE TO THE REPORTING COMPANY'S OTHER SOURCES OF [SCOPE 3] EMISSIONS, USING INITIAL GHG ESTIMATION METHODS.

- Companies **should not** exclude activities that are determined to be relevant based on other defined criteria."

Decision making criteria considerations

Alignment with criteria is described as low alignment (orange), medium alignment (yellow), or high alignment (green). The table below is a preliminary assessment for Technical Working Group discussion.

Table 5. Decision-making criteria: How should relevance principle be considered in exclusion of activities

Criteria	**Option 1A: Maintain current language: relevance is at the discretion of the preparer** Companies **should not** exclude any activities from the scope 3 inventory that would compromise the relevance of the reported inventory.	**Option 1B: Relevance is required** Companies **shall not** exclude any activities from the scope 3 inventory that would compromise the relevance of the reported inventory.	**Option 1C: Relevance is required based on the criterion of magnitude of emissions only** Companies **shall not** exclude any activities from the scope 3 inventory that is expected to contribute significantly to the company's total scope 3 emissions. Companies **should not** exclude activities that are determined to be relevant based on other defined criteria.
Scientific integrity	Largely NA	Largely NA	Largely NA
GHG accounting and reporting principles	Pros: somewhat promoting relevance through recommendation to follow the principle in exclusion consideration. All principles are required to be followed in accounting and reporting. Cons: following the principle in consideration of exclusion is not required	Pros: Strongly promoting relevance, requiring to follow it (in full) in exclusion consideration All principles are required to be followed in accounting and reporting.	Pros: promoting relevance through requirement of consideration of the magnitude of emissions, and recommendation of consideration of other criteria All principles are required to be followed in accounting and reporting. Cons: following the other criteria of relevance in consideration of exclusion is not required
Support decision making that drives ambitious global	Pros: potentially allows companies to focus on action Cons: unclear and uneven exclusions may lead to significant omissions of relevant emissions	Pros: more direct connection of relevance to the accounting leading to potential action focused on the most relevant activities Cons: additional burden of relevance assessment that	Pros: more direct connection of relevance to the accounting leading to potential action focused on the activities potentially opening the largest reduction opportunities.

Criteria	Option 1A: Maintain current language: relevance is at the discretion of the preparer Companies **should not** exclude any activities from the scope 3 inventory that would compromise the relevance of the reported inventory.	Option 1B: Relevance is required Companies **shall not** exclude any activities from the scope 3 inventory that would compromise the relevance of the reported inventory.	Option 1C: Relevance is required based on the criterion of magnitude of emissions only Companies **shall not** exclude any activities from the scope 3 inventory that is expected to contribute significantly to the company's total scope 3 emissions. Companies **should not** exclude activities that are determined to be relevant based on other defined criteria.
climate action	overlooking potential for action	may be carried out at the cost of action	Cons: potentially additional burden of magnitude assessment if it was not being performed previously; may be carried out at the cost of action
Support programs based on GHG Protocol and uses of GHG data	Pros: High interoperability with other frameworks Cons: Lower support to users of information due to flexibility provided on exclusions and consequent lower cross-company comparability and action assessment	Pros: Higher support to user due to clearer exclusion conditions facilitating interpretation of the information and action assessment. Interoperable with major frameworks Cons: Qualitative assessments of relevance criteria may be subjective impeding information interpretation. Some sectoral guidance might need reconsideration	Pros: Higher support to user due to clear exclusion conditions facilitating interpretation of the information and action assessment. Interoperable with major frameworks Cons: some sectoral guidance might need reconsideration
Feasibility to implement	Pros: easy to implement due to broad discretion given on exclusions Cons: May be challenging for preparers in choices to be made	Cons: Additional burden for relevance analysis	Pros: Discretion is given on consideration of non-size relevance criteria Cons: Additional burden for proving that the exclusion of a category or activity does not compromise relevance (by magnitude)

2. How do the relevance criteria need to be followed to fulfill relevance?

If either option 1A or 1B is selected in the previous question, this raises a question about *how* relevance criteria should be followed. In case of adopting the 1C option in the previous question, the answer would be stronger connected to the assessment of one of the relevance criteria (size/magnitude).

Option 2A. Maintain current language: Relevance assessment is at the practitioner's discretion

The six relevance criteria presented in table 6.1 of the current Scope 3 Standard (i.e. size, influence, risk, stakeholders, outsourcing, sector guidance, other) should be followed. However, it is not clear how the criteria should be followed. For example, do one, some, or all criteria for relevance need to be followed?

For example, suppose business travel constitutes only a minor share of total scope 3 emissions for a company, but the company has reduction influence over this activity's emissions under the company's policies. One preparer may judge business travel as relevant due to influence, while another may judge it not relevant due to a negligible size.

Option 2B. Relevance is defined as meeting at least one of the relevance criteria

This option involves editing the text to stipulate that an activity is relevant when <u>at least one</u> of the relevance criteria is met.

For example:

- If a company can undertake or influence potential emissions reductions even though the emissions associated with the activity are not large in magnitude, the activity emissions would still be relevant.
- If an activity's emissions were deemed critical by a key stakeholder (e.g. customers, suppliers, investors, civil society), although they are of little magnitude, do not contribute to risk exposure, and do not meet other criteria, the activity would still be relevant.

Defining relevance as meeting <u>all of the criteria</u> is not viable due to the specifics of the listed criteria. For example, one of the criteria, "outsourcing", is applicable only in situations where changes in business processes are implemented. The criterion "sector guidance" is applicable only if sector guidance has been developed.

Defining relevance as meeting <u>most of the criteria</u> does not present considerable improvements in comparison with the current (default) option due to its vague character.

The introduction of a stricter definition of relevance could result in an increased burden for the relevance analysis and the inventory preparation. This would be especially true in combination with a requirement to meet the principle of relevance (i.e., Options 1B and 1C).

<u>Example text for Option 2B</u>

Note: the following example (tentatively) includes the requirement of meeting the principles as discussed in the previous consideration (Option 1B). If other options are adopted for question 1, the phrasing would need to be adjusted accordingly.

"Companies **shall not** exclude any activities from the scope 3 inventory that would compromise the relevance of the reported inventory. **Relevance is defined as meeting at least one of the relevance criteria: size, influence, risk, stakeholders,**

outsourcing, or other criteria identified by sector guidance or the reporting organization."

Decision-making criteria considerations

Alignment with criteria is described as low alignment (orange), medium alignment (yellow), or high alignment (green). The table below is a preliminary assessment for Technical Working Group discussion.

Table 6. Decision making criteria: How do relevance criteria need to be followed to fulfill relevance?

Criteria	Option 2A: Maintain current language: Relevance assessment is at the preparer's discretion	Option 2B: Relevance is defined as meeting at least one of the relevance criteria
Scientific integrity	Largely N/A	Largely N/A
GHG accounting and reporting principles	Pros: relevance may be defined with more finetuning to the context of the business and operation. Cons: completeness and relevance may be challenged if activities are misjudged and excluded. Transparency may be challenged if application of particular relevance criteria used for exclusion justification are not disclosed.	Pros: Promoting relevance and completeness. Potentially promoting transparency and consistency.
Support decision making that drives ambitious global climate action	Pros: potentially allows companies to finetune relevance for the business sand operations context, and focus on action Cons: unclear and uneven exclusions may lead to omissions of relevant emissions	Pros: larger view of relevance that can broaden the company's focus on action Cons: Additional burden that may be carried out at the cost of action
Support programs based on GHG Protocol and uses of GHG data	Pros: High interoperability (fits all) Cons: Lower support to user when unclear and uneven relevance indication impedes interpretation of data and decision-making	Pros: High interoperability (fits all) Higher support to user due to clearer relevance framework facilitating clearer interpretation for decision-making
Feasibility to implement	Pros: Lower reporting burden due to wide discretion given in relevance considerations Cons: Confusing for preparers in choices to be made	Pros: Clear guidance for preparers Cons: Additional burden for relevance assessment. Potentially additional burden for accounting and reporting of emissions that were previously excluded.

3. Should a magnitude threshold be defined for determining relevance?

Among the criteria for relevance, size (magnitude) of emissions seems to be most widely accepted. A quantitative threshold for magnitude could define whether an activity is required

to be included in the inventory or not. Based on the choice of Options 1B or 1C, the magnitude of emissions could become one of the defining parameters of relevance. Depending on the form of reporting of the scope 3 inventory according to its data quality (addressed in Scope 3 subgroup A), a magnitude threshold might also be used for defining boundaries and/or requirements for accounting and reporting scope 3 emissions to a certain quality. I.e., the threshold may be used not only to say that emissions are relevant, but also to say that emissions are of high relevance and need to be reported based on [type of data / quality level].

Setting a quantitative threshold requirement could take several forms.

Option 3A Maintain current language: relevance of emissions size is at the discretion of the preparer.

This option would maintain the current approach in the Scope 3 Standard in which defining relevance of emissions size is left to the preparer's judgement. In case of assurance, relevance may be confirmed or challenged by the assurer.

Option 3B Magnitude threshold is required to be defined at the discretion of preparer.

This option would require companies to set a fixed quantitative threshold and apply it consistently. The specific threshold would be at the reporter's discretion and would need to be disclosed in their inventory report. An example of an emissions threshold might be 1% of the total scope 3 inventory (such that an activity is significant and required to include in the inventory if its emissions are estimated to be 1% or more of total scope 3 emissions).

Option 3C Magnitude threshold is defined by the Scope 3 Standard.

This option would define a fixed quantitative threshold for all reporting companies. The threshold would be defined by the Scope 3 Standard, and all preparers would need to apply that threshold in assessing the significance of scope 3 activities.

A variation of this option can be considered where the Scope 3 Standard would define a fixed default threshold and preparers would be required to justify any deviations from the default threshold.

Option 3D. Require all scope 3 emissions to be accounted for regardless of magnitude.

This option would not have a defined threshold for magnitude because it would mean that all emissions – regardless of size/magnitude – must be included in the inventory. It should be noted that this option is not compatible with option 1C, as it would practically remove the size criterion of relevance stating that emissions of any magnitude need to be reported.

Decision making criteria considerations

Alignment with criteria is described as low alignment (orange), medium alignment (yellow), or high alignment (green). The table below is a preliminary assessment for Technical Working Group discussion.

Table 7. Decision making criteria: Should a magnitude threshold be defined?

Criteria	Option 3A: Maintain current language: relevance of emissions size is at the discretion of the preparer	Option 3B: Magnitude threshold is required to be defined at discretion of preparer	Option 3C: Magnitude threshold is defined by the Scope 3 Standard	Option 3D: Require all scope 3 emissions to be accounted for regardless of magnitude
Scientific integrity	Largely N/A Pros: leaving out considerations of de minimis practically resolves the paradox of de minimis	Largely N/A Cons: introduces the paradox of excluding the emissions that have been accounted/estimated	Largely N/A Cons: introduces the paradox of excluding the emissions that have been accounted/estimated	Largely N/A Pros: resolves the paradox of omitting the emissions that have been estimated/accounted for
GHG accounting and reporting principles	Pros: potentially promoting organization-specific relevance Cons: potential challenging of relevance, completeness and transparency	Pros: Potentially promoting relevance and consistency Cons: potential challenging of relevance and completeness if an unreasonably high threshold is chosen	Pros: Potentially promoting relevance, transparency, completeness, consistency Cons: potential challenging of relevance if the GHG Protocol threshold is not suitable for the organization context Possibility to justify use of a threshold other than default may alleviate the cons	Pros: Potentially promoting transparency, completeness and consistency; Cons: challenging the principle of relevance
Support decision making that drives ambitious global climate action	Pros: companies may set the threshold that fits their objectives and focus resources on action Cons: potential significant omissions and blurred relevance may impede the	Pros: companies may set the threshold that fits their objectives and focus resources on action Cons: potential significant omissions may impede the action	Pros: significant omissions are less likely, allowing focus action on relevant areas Cons: effort in performing estimations might take resources from carry out action	Pros: significant omissions are less likely, allowing focus action on relevant areas Cons: significant effort in performing estimations might take

Criteria	Option 3A: Maintain current language: relevance of emissions size is at the discretion of the preparer	Option 3B: Magnitude threshold is required to be defined at discretion of preparer	Option 3C: Magnitude threshold is defined by the Scope 3 Standard	Option 3D: Require all scope 3 emissions to be accounted for regardless of magnitude
	action in non-detected activities The definition of relevant magnitude between companied is inconsistent and may impede top-down (e.g. regulatory) action	in non-detected activities The definition of relevant magnitude between companied is inconsistent and may impede top-down (e.g. regulatory) action	Pre-set threshold may not show adequate for some sectors. Possibility to justify use of a threshold other than default may alleviate the cons.	resources from carry out action
Support programs based on GHG Protocol and uses of GHG data	Pros: High interoperability: companies may select the threshold that fits the frameworks they follow. Cons: Does not support user in cross-company considerations, and in case of qualitative subjective thresholds.	Pros: High interoperability: companies may select the threshold that fits the frameworks they follow. Cons: Does not support user in cross-company considerations	Pros: supports user providing transparency and alignment in relevance setting Promotes cross-company comparability. Interoperable with selected frameworks Cons: Lower interoperability with frameworks that have pre-set thresholds different from the chosen one	Pros: Supports user in providing information on all activities' emissions independent of their magnitude, but makes the definition by other criteria more important, while they are less rigid and more subjective. Cons: Medium interoperability, with potential discrepancies with frameworks that have pre-set thresholds

Criteria	Option 3A: Maintain current language: relevance of emissions size is at the discretion of the preparer	Option 3B: Magnitude threshold is required to be defined at discretion of preparer	Option 3C: Magnitude threshold is defined by the Scope 3 Standard	Option 3D: Require all scope 3 emissions to be accounted for regardless of magnitude
Feasibility to implement	Pros: Self-defined, flexible approach.	Pros: Self-defined threshold. Significance threshold may reduce effort in preparing the inventory focusing on activities above the threshold. Cons: May increase effort on the screening/ estimation step for companies that are not already doing this step.	Pros: Frees preparers from making decisions on the threshold Significance threshold may reduce effort in preparing the inventory focusing on activities above the threshold. Cons: May increase effort on the screening/ estimation step for companies that are not already doing this step.	Pros: Frees preparers from making decisions on the threshold. Cons: Significantly increased effort to report of all activities without exclusions and very challenging to fully achieve

4. Should the influence criterion be refined for determining relevance?

Based on the stakeholder feedback, influence is arguably the most difficult criterion to operationalize for determining emissions relevance. The current description of the influence criterion assumes that emissions are relevant if "There are potential emissions reductions that could be undertaken or influenced by the company". Box 6.2 in the Scope 3 Standard provide additional guidance:

> "By definition, scope 3 emissions occur from sources that are not owned or controlled by the reporting company, but occur from sources owned and controlled by other entities in the value chain (e.g., contract manufacturers, materials suppliers, third-party logistics providers, waste management suppliers, travel suppliers, lessees and lessors, franchisees, retailers, employees, and customers). Nevertheless, scope 3 emissions can be influenced by the activities of the reporting company, such that companies often have the ability to influence GHG reductions upstream and downstream of their operations. Companies should prioritize activities in the value chain where the reporting company has the potential to influence GHG reductions. See table 9.7 for illustrative examples of actions to influence scope 3 reductions." (p. 61)

This definition and guidance can be interpreted very broadly, since a company could have some degree of influence over many emission sources outside its boundaries. Given that this is left to prepares to determine, the influence criterion is applied unevenly in practice.

In their editorial article to Integrated Environmental Assessment and Management journal, v.19, issue 5,[38] Emborg, Lloyd and Olsen suggest a tiered approach to evaluating companies' level of influence on processes considered in GHG accounting (from highest degree of influence to lowest):

- Level 3: Direct control (e.g. supplier change, maintenance procedures, standard requirements, design criteria, frequencies, etc.)
- Level 2: Indirect control (e.g. demand or criteria setting towards tier 1 supplier)
- Level 1: Full control by external stakeholder, e.g. client or tier 2 supplier.

While the tool is aimed at allowing for more informed prioritization of decarbonization actions,[39] it can provide insights into a more structured definition of influence as a criterion of relevance of emissions.

Option 4A. Maintain the current definition of influence

In this option, defining the level of influence that would make emissions relevant is left to the preparer's discretion. The definition of influence would stay the same.

Option 4B. Define a list of influence pathways

In this option, a list of specific influence practices / pathways would be defined to help companies determine if any are applicable to their emission sources. If any of the influence practices were deemed to relevant to an activity, then that activity and the associated emissions would meet the influence criteria.

An influence practice could be defined as an action that a company could take that would affect emissions. For example, an influence practice might be the choice to change to a new value chain partner that has products with lower emissions.

Example

A list of potential to influence may be derived from the type of actions that an organization may take in its value chain to reduce scope 3 emissions. Based on table 9.7 in the Scope 3 Standard, the following example text was developed:

Emissions are deemed to be relevant if the preparing entity has a potential to influence GHG reductions through at least one of the following:

- Change of value chain partner
- Value chain partner engagement
- Implementation of low-GHG procurement policies, including materials and energy procurement
- Reduction of own material and energy consumption or change of consumption patterns
- Waste generation reduction

[38] Emborg, Mia, Lloyd Shannon, Olsen, Stig, Why process-level Scope 3 accounting is needed for delivering supply chain greenhouse gas emission reduction, Integrated Environmental Assessment and Management — Volume 19, Number 5—pp. 1165–1167

[39] After defining the influence level, activities are evaluated on the costs of action, and the aggregated score is intended to serve as a weighting factor for emissions and action ranking.

- Adoption of low-emitting waste treatment methods
- Replacing, removing, or installing equipment
- Maintenance procedures and (re)design thereof
- Process optimization
- (Re)design of products or services, including supplementary and complementary products, packaging, etc.
- Business model change
- Stakeholder engagement in and incentivizing of low-emission behaviors
- Changes in business processes and locations
- Implementation of low-emission investment policies
- Implementation of low-emission client-selection process policies
- Other ways determined by sector guidance
- Other ways determined by the company

Option 4C. Define the level of influence

Using the classification by Emborg, Lloyd and Olsen[40], level of influence can be defined as sufficient for emissions to be considered relevant.

Example

Emissions are deemed to be relevant if the entity has direct or indirect control of processes considered in the accounting of emissions from activities. Direct control assumes changes in the entity's own operations leading to changes in the parameters of accounting (e.g. supplier change, maintenance procedures, standard requirements, design criteria, etc.). Indirect control assumes that changes in engagement with value chain partners can lead to changes in parameters of accounting (e.g. demand or criteria setting in procurement, employee incentivizing, etc.).

Decision making criteria consideration

Alignment with criteria is described as low alignment (orange), medium alignment (yellow), or high alignment (green). The table below is a preliminary assessment for Technical Working Group discussion.

Table 8. Decision making criteria: Should the influence criterion be refined?

Criteria	Option 4A: Maintain the current definition of influence	Option 4B: Define a list of influence pathways	Option 4C: Define the level of influence
Scientific integrity	Largely NA	Largely NA	Largely NA
GHG accounting and reporting principles	Pros: allows for reflecting relevance through influence within the organization-specific context	Pros: Increasing transparency in relevance definition, potentially promoting	Pros: Potentially increasing transparency in relevance definition, potentially promoting

[40] Emborg, Mia, Lloyd Shannon, Olsen, Stig, Why process-level Scope 3 accounting is needed for delivering supply chain greenhouse gas emission reduction, Integrated Environmental Assessment and Management — Volume 19, Number 5—pp. 1165–1167

Criteria	Option 4A: Maintain the current definition of influence	Option 4B: Define a list of influence pathways	Option 4C: Define the level of influence
	Cons: Challenging transparency in relevance definition, and potentially consistency	consistency and completeness	consistency and completeness (subject to rigid definitions)
Support decision making that drives ambitious global climate action	Pros: Leaving the judgment of relevant influence to the preparer, facilitating most relevant action Cons: Potentially creating loopholes allowing for omission of relevant emissions	Pros: Requiring preparers to consider a wide range of actions that can lead to the emissions reductions, creating clarity and therefore promoting action	Pros: Requiring preparers to consider potential ways of direct and indirect influence that can lead to emission reductions. Creating structure for consideration and freedom in definition of action Cons: leaving room for non-consideration / omission of some actions
Support programs based on GHG Protocol and uses of GHG data	Pros: Largely interoperable Cons: unclear definition of influence impedes interpretation of the relevant emissions	Pros: Higher support to user in provision of concrete actions that are to be considered by preparers Largely interoperable	Pros: Some support to user in provision the general definition of influence as a criterion of relevance. Largely interoperable
Feasibility to implement	Pros: Feasible; procedure of consideration is defined by the preparer	Pros: Largely feasible Cons: may require more in-depth analysis of influence per activity	Pros: Largely feasible Cons: may require effort in definition of potential direct and indirect control actions, and more in-depth analysis of influence per activity

5. Should the guidance on exclusion of downstream categories for intermediate products be revised?

Companies that produce intermediate products face a unique challenge in assessing their downstream scope 3 emissions. When a company sells its intermediate product to another manufacturer, they often do not know exactly how their intermediate products will be used. The challenge is that a manufacturer of intermediate products must know the ultimate application of their product to accurately assess their downstream scope 3 emissions for

categories 10 (processing of sold products), 11 (use of sold products), and 12 (end-of-life treatment of sold products). This situation is explained in the standard and guidance provided in section 6.4, "Accounting for downstream emissions."

The current guidance is provided in section 6.4 of the Scope 3 Standard as follows:

> "The applicability of downstream scope 3 categories depends on whether products sold by the reporting company are final products or intermediate products (see section 5.6). In certain cases, the eventual end use of sold intermediate products may be unknown. For example, a company may produce an intermediate product with many potential downstream applications, each of which has a different GHG emissions profile, and be unable to reasonably estimate the downstream emissions associated with the various end uses of the intermediate product. In such a case, companies may disclose and justify the exclusion of downstream emissions from categories 9, 10, 11, and 12 in the report (but should not selectively exclude a subset of those categories). "

Interpretation of the current guidance in practice may lead to some confusion, challenges and loopholes in application of the guidance:

1. The allows for exclusion of downstream categories, however potential justification of these exclusions is vague, referring inability to "reasonably estimate the downstream emissions". Reasonability of estimations can be a subjective construct and may lead to very diverse interpretations. While one preparer may judge downstream scenarios based on market or regional statistics reasonable, another may perceive it too uncertain to include into their inventory.
2. Justification of exclusion of downstream categories is limited by the condition that companies "should not selectively exclude a subset of those categories". This statement in practice shows to see two different interpretations:
    - Exclusion of one downstream category (9,10,11,12) for a product should be combined with the exclusion of all other of these categories for the same product.
    - Exclusion of one downstream category (9,10,11,12) for a product should be combined with the full exclusion of this category for all products of the company.

While the first interpretation is correct, either of the interpretations may be limiting for accounting in reporting. In the case brought in the example ("many potential downstream applications, each of which has a different GHG emissions profile"), if the company produces crude oil, end of life emissions assumptions might be reasonable based on the stoichiometry, while processing and use emissions might be of a higher uncertainty. In the same way, inability to estimate emissions in downstream transportation may lead to exclusion of all downstream emissions even if they can be reasonably estimated. On the other hand, if a company has a wide portfolio of products and activities, exclusion of a whole category because of one of the product would lead to significant underreporting.

The following three options are proposed regarding guidance on intermediate products.

Option 5A. Maintain the current language

In this option, justification of exclusion is left to the judgment of the preparer.

Option 5B. Editorial change to facilitate interpretation

In this option, editorial changes should be introduced to clarify the guidance. Suggested text is as follows (removed text is in strikethrough, added text is in capital letters).

> "The applicability of downstream scope 3 categories depends on whether products sold by the reporting company are final products or intermediate products (see section 5.6). In certain cases, the eventual end use of sold intermediate products, AND RELATED TRANSPORTATION, PROCESSING, USE AND END OF LIFE EMISSIONS, may be unknown. For example, a company may produce an intermediate product with many potential downstream applications, each of which has a different GHG emissions profile AND LEAD TO DIVERSE END OF LIFE TREATMENT. THE COMPANY MAY ~~and~~ be unable to reasonably estimate the downstream emissions associated with the various end uses of the intermediate product, FOR EXAMPLE USING METHODS SUCH AS STOICHIOMETRY, BUSINESS INTELLIGENCE AND MARKET RESEARCH, REGIONAL STATISTICS, SECTORAL GUIDANCE AND DEFAULT SCENARIOS. In such a case, companies may disclose and justify the exclusion of downstream emissions from categories 9, 10, 11, and 12 FOR THE INTERMEDIATE PRODUCT(S) IN QUESTION. THE COMPANY HOWEVER ~~(but~~ should not selectively exclude a subset of those categories FOR THAT PRODUCT."

Option 5C. Editorial change to facilitate interpretation, with removal of the provision to include or exclude all downstream categories.

In this option, editorial changes are introduced to clarify the guidance, however the clause on non-exclusion of a subset of the downstream categories is removed. Suggested text is as follows (removed text is in strikethrough, added text is in capital letters)

> "The applicability of downstream scope 3 categories depends on whether products sold by the reporting company are final products or intermediate products (see section 5.6). In certain cases, the eventual end use of sold intermediate products, AND RELATED TRANSPORTATION, PROCESSING, USE OR END OF LIFE EMISSIONS, may be unknown. For example, a company may produce an intermediate product with many potential downstream applications, each of which has a different GHG emissions profile AND LEAD TO DIVERSE END OF LIFE TREATMENT. THE COMPANY MAY ~~and~~ be unable to reasonably estimate the downstream emissions associated with the various end uses of the intermediate product, FOR EXAMPLE USING METHODS SUCH AS STOICHIOMETRY, BUSINESS INTELLIGENCE AND MARKET RESEARCH, REGIONAL STATISTICS, SECTORAL GUIDANCE AND DEFAULT SCENARIOS. In such case, companies may disclose and justify the exclusion of downstream emissions from categories 9, 10, 11, ~~and~~ OR 12 ~~in the report~~ FOR THE INTERMEDIATE PRODUCT(S) IN QUESTION.

Option 5D. Remove intermediate products as a special case

In this option, companies selling intermediate products down the value chain would be required to report the downstream emissions of those intermediate products to achieve completeness. They would no longer be able to apply an exclusion due to the special case of producing an intermediate product. Instead, companies would be required to show their best efforts to estimate the relevant downstream emissions. If the emissions estimation is based on highly uncertain data (e.g., generic scenarios, global or regional statistics, secondary data), they might be required to report these emissions with a disclaimer and/or separately from the higher quality inventory.

Introduction of this option may lead to an increase in the efforts on estimations that may have been previously omitted. The estimation of downstream emissions for products in the beginning of their respective value chains may become the most time consuming and difficult, and including a wide range of possible processing and application scenarios. For these cases, guidance may be introduced as either:

- Reference to company's business intelligence and/or market research
- Reference to the statistical use of the respective material in the markets of sales or globally
- Sector-specific guidance and default scenarios

Decision making criteria considerations

Alignment with criteria is described as low alignment (orange), medium alignment (yellow), or high alignment (green). The table below is a preliminary assessment for Technical Working Group discussion.

Table 9. Decision making criteria: Should the guidance on exclusion of downstream categories for intermediate products be revisited?

Criteria	Option 5A: Maintain the current language	Option 5B: Editorial change to facilitate interpretation	Option 5C: Editorial change to facilitate interpretation, with removal of provision to include or exclude all downstream categories	Option D: Remove intermediate products as a special case
Scientific integrity	Largely NA	Largely NA	Largely NA	Largely NA
GHG accounting and reporting principles	Pros: might support somewhat higher levels of accuracy Cons: Potentially challenges relevance, completeness, and transparency	Pros: Promoting relevance and completeness. Potentially promoting consistency Cons: Potentially decreasing accuracy of specific categories Potential relevant categories may be omitted due to no-subset exclusion rule.	Pros: Promoting relevance and completeness. Potentially promoting consistency Cons: Potentially decreasing accuracy of specific categories	Pros: Promoting relevance and completeness. Potentially promoting consistency Cons: Decreasing accuracy of specific categories

Criteria	Option 5A: Maintain the current language	Option 5B: Editorial change to facilitate interpretation	Option 5C: Editorial change to facilitate interpretation, with removal of provision to include or exclude all downstream categories	Option D: Remove intermediate products as a special case
Support decision making that drives ambitious global climate action	Cons: unclear and uneven exclusions may lead to significant / relevant omissions	Pros: larger overview of relevance that can adjust the company's focus of action Cons: Additional burden that may be carried out at the cost of action	Pros: larger overview of relevance that can adjust the company's focus of action Cons: Additional burden that may be carried out at the cost of action	Pros: Could help identify emissions reduction opportunities Cons: Additional burden that may be carried out at the cost of action
Support programs based on GHG Protocol and uses of GHG data	Pros: High interoperability Cons: unclear and incomparable exclusion.	Pros: clearer exclusion rules may ease interpretation of information and provide better overview to external users for their decision making. Medium to high interoperability Cons: Potentially added information will be of lower quality, uncertain and with multiple interpretations possible. No sub-set exclusion rule impeding receiving information potentially relevant for user's decision making.	Pros: clearer exclusion rules may ease interpretation of information and provide better overview to external users for their decision making. Medium to high interoperability Cons: Potentially added information will be of lower quality, uncertain and with multiple interpretations possible. May potentially need alignment with SBTi and adjustments to existent sector guidance.	Pros: Larger overview of the scale of emissions for the user, however potentially lower accuracy impeding perceived actionability. Largely interoperable with regulations and reporting frameworks including SBTi Cons: Sector guidance for intermediate products may require revision

Criteria	Option 5A: Maintain the current language	Option 5B: Editorial change to facilitate interpretation	Option 5C: Editorial change to facilitate interpretation, with removal of provision to include or exclude all downstream categories	Option D: Remove intermediate products as a special case
		May potentially need alignment with SBTi and adjustments to existent sector guidance.		
Feasibility to implement	Pros: Preparers have discretion Cons: Confusing for preparers regarding choices to be made	Pros: reducing confusion in interpretation of the guidance. Cons: Additional effort of scenarios analysis and estimation for justification of exclusion	Pros: reducing confusion in interpretation of the guidance. Cons: Additional effort of scenarios analysis and estimation for justification of exclusion	Pros: reducing confusion in interpretation of the guidance. Cons: Additional significant effort of estimation of downstream emissions.

6. Should de minimis be formally defined in the Scope 3 Standard?

De minimis is defined in the Corporate Standard as a permissible quantity of emissions that a company can leave out of its inventory (p. 70), though its use is not endorsed by the Corporate Standard (p. 8). A quantitative threshold for "de minimis" is not formally defined in any of the GHG Protocol Standards. In particular, the *Corporate Standard* warns:

> "Sometimes it is tempting to define a minimum emissions accounting threshold <…> stating that a source not exceeding a certain size can be omitted from the inventory. Technically, such a threshold is simply a predefined and accepted negative bias in estimates (i.e., an underestimate). Although it appears useful in theory, the practical implementation of such a threshold is not compatible with the completeness principle of the GHG Protocol Corporate Standard. In order to utilize a materiality specification, the emissions from a particular source or activity would have to be quantified to ensure they were under the threshold. However, once emissions are quantified, most of the benefit of having a threshold is lost.
>
> A threshold is often used to determine whether an error or omission is a material discrepancy or not. This is not the same as a de minimis for defining a complete inventory. Instead companies need to make a good faith effort to provide a

complete, accurate, and consistent accounting of their GHG emissions. For cases where emissions have not been estimated, or estimated at an insufficient level of quality, it is important that this is transparently documented and justified. Verifiers can determine the potential impact and relevance of the exclusion, or lack of quality, on the overall inventory report" (p. 8)

At the same time, de minimis is a concept that is widely used by practitioners in inventory preparation. Applying the de minimis concept can help practitioners focus resources on substantial emissions sources, ultimately saving time and reducing the time in order to save resources in data collection.

Not having a formally set de minimis threshold may create uneven ground for preparers and impede the comparability of company inventories and boundaries and cross-company considerations.

The options proposed below consider whether to explicitly allow or forbid use of de minimis, and if to allowed, how its threshold should be defined. In the context of the boundary setting and inventory calculations, setting up de minimis is considered separately from setting up a magnitude threshold due to three main differences:

- Magnitude threshold sets up a boundary of the entity's value chain system; de minimis does not set up a system boundary but rather presents a practical solution to a data collection trade-off.
- Magnitude threshold can be used to justify omitting an activity or category, while de minimis can be used to omit a particular source / item
- Magnitude threshold may be used for indicating the threshold for certain quality of reporting, while de minimis would be only a yes/no threshold
- Magnitude threshold application requires quantitative analysis of excluded emissions, while de minimis might not.

Option 6A. Maintain the current language: no de minimis definition

This option would continue to allow exclusions of activities when disclosed and justified (subject to potential revisions), however without a formal reference to a de minimis. In practice, preparers would be able to choose if and how to apply the de minimis concept. However, this flexibility has resulted in the uneven application of de minimis across inventories, impeding comparability. Moreover, such exclusions would be applicable on activities level.

Option 6B. Do not allow the application of de minimis

In this option, inventory preparers would not be allowed to exclude emissions from their inventories based on their (expected) negligible size. It would require that companies report all emissions in relevant categories / activities.

Option 6C. Permit application of de minimis, with the threshold defined by the preparer

This option would revise the Standard to explicitly and clearly allow companies to exclude emissions that are considered de minimis. Companies would be required to set their own de minimis threshold in their policies and transparently report it.

This option suggests:

- The de minimis threshold (as a % of GHG emissions) shall be set by the entity based on the volume of GHG emissions
- The de minimis threshold shall have a maximum cumulative value as a share of the total scope 3 inventory
- Emissions claimed de minimis shall be estimated at a high level, using conservative assumptions and proxies, using assumptions, literature, or expert judgement.
- Activities, emissions sources, and/or inventory entries claimed as de minimis and therefore excluded from the inventory shall be transparently listed in the reporting.

This option would continue to allow preparers to exclude emissions claimed as de minimis. The main difference is that it would clearly define what the preparer must report when claiming de minimis emissions.

Option 6D. Permit application of de minimis, with the threshold defined by the Scope 3 Standard

This option would also revise the Standard to explicitly and clearly allow companies to exclude emissions that are considered de minimis. The difference is that the acceptable threshold for de minimis would be set by GHG Protocol. This means that this option would also require GHG Protocol to identify an appropriate threshold for exclusion as de minimis.

This option suggests:

- The de minimis threshold shall be set based on the volume of GHG emissions
- The de minimis threshold shall have a maximum cumulative value as a share of the total scope 3 inventory, to be set by GHG Protocol, such as 3% or 5%.
- Emissions claimed de minimis shall be estimated at a high level, using conservative assumptions and proxies, using assumptions, literature, or expert judgement.
- Activities, emissions sources, and/or inventory entries claimed to be de minimis and therefore excluded from the inventory shall be transparently listed in the reporting

Decision making criteria considerations

Alignment with criteria is described as low alignment (orange), medium alignment (yellow), or high alignment (green). The table below is a preliminary assessment for Technical Working Group discussion.

Table 10. Decision making criteria: Should "de minimis" be formally defined in the Scope 3 Standard?

Criteria	Option 6A: Maintain the current language: no de minimis definition	Option 6B: Do not allow the application of de minimis	Option 6C: Permit application of de minimis, with the threshold defined by the preparer	Option 6D: Permit application of de minimis, with the threshold defined by the Scope 3 Standard
Scientific integrity	Largely N/A Pros: leaving out considerations of de minimis practically resolves the paradox of de minimis	Largely N/A Pros: resolves the paradox of de minimis	Largely N/A Cons: paradox of de minimis needs resolving	Largely N/A Cons: paradox of de minimis needs resolving
GHG accounting and reporting principles	Pros: potentially promotes relevancy specific to the entity's context and operations. Cons: May challenge transparency. May open possibility for omission of relevant emissions challenging relevance and completeness	Pros: Promotes transparency, completeness and consistency; potentially promotes relevance; Cons: Challenges accuracy.	Pros: Promotes completeness, consistency and relevance; potentially promotes transparency; Cons: potentially challenges accuracy.	Pros: Promotes completeness, consistency, relevance and transparency; Cons: potentially challenges accuracy.
Support decision making that drives ambitious global climate action	Pros: Preparer may choose own policies and focus on the actions as determined suitable in prioritization. Cons: Potential omission of relevant emissions.	Pros: facilitates more complete inventory, allowing for a potentially better overview of emission sources and actionability. Cons: Additional significant burden on full calculation may lead to less resources available for action	Pros: facilitates more complete inventory, allowing for a potentially better overview of emission sources and actionability. Cons: Additional burden on preparers proving the de minimis may lead to less	Pros: facilitates more complete inventory, allowing for a potentially better overview of emission sources and actionability. Cons: Potentially, with a low de minimis value set, the quality of the resulting inventory and actionability of

Criteria	Option 6A: Maintain the current language: no de minimis definition	Option 6B: Do not allow the application of de minimis	Option 6C: Permit application of de minimis, with the threshold defined by the preparer	Option 6D: Permit application of de minimis, with the threshold defined by the Scope 3 Standard
		Lower quality of the information may make the inventory not interpretable for action.	resources available for action	the information may be challenged. Additional burden on preparers proving the de minimis may lead to less resources available for action
Support programs based on GHG Protocol and uses of GHG data	Pros: Highly interoperable Cons: No transparent information on the omitted de minimis emissions. User is challenged in cross-company considerations. Lack of guidance creates barriers in verification, audit, communication.	Pros: Potentially highly interoperable as providing the most rigid requirements on exclusion Potential support of internal and external user with full overview of the emissions Potentially helps in prioritization of action. Cons: potentially involves estimations of low quality, making it less useful in action. May be challenged in meeting other frameworks' requirements on data quality.	Pros: Potential support of user with better overview of the emissions in the inventory, and the cross-company considerations. Interoperable, allowing to choose de minimis that would suit other frameworks relevant for the preparer.	Pros: Potential support of user with better overview of the emissions in the inventory, and the cross-company considerations. Interoperability can be achieved if values are consistent with other frameworks (e.g. total 5% in SBTi and CDP, 3% in some LCA frameworks). Cons: Potentially with a low value, some LCA studies accepting higher de

Criteria	Option 6A: Maintain the current language: no de minimis definition	Option 6B: Do not allow the application of de minimis	Option 6C: Permit application of de minimis, with the threshold defined by the preparer	Option 6D: Permit application of de minimis, with the threshold defined by the Scope 3 Standard
				minimis may be not applicable. Potentially, with a low de minimis value set, may be challenged in meeting other frameworks' requirements on data quality.
Feasibility to implement	Pros: Feasible, leaving to interpretation by preparer Cons: can be confusing for the user, preparer, and assurer	Pros: requires estimations that result in broader overview of emissions and allows to prioritize further data collection on the most important. Cons: Very low feasibility, requiring expansive data collection and estimations	Pros: Preparers receive discretion in decision of a relevant de minimis for the organizational context. Requires estimations that result in broader overview of emissions and allows to prioritize further data collection on the most important. Cons: Additional burden on preparers for high level estimation to prove de minimis	Pros: requires estimations that result in broader overview of emissions and allows to prioritize further data collection on the most important. Cons: Additional burden on preparers for high level estimation to prove the de minimis

1508

7. Should the minimum boundaries of scope 3 categories be revised to require currently optional activities?

In the *Scope 3 Standard*, the minimum required boundaries are defined for each scope 3 category. Specific activities are identified as optional. For example, for category 6 (business travel), the minimum boundary is defined as "The scope 1 and scope 2 emissions of transportation carriers that occur during use of vehicles (e.g., from energy use)" (Table 5.4, pg. 35). Beyond that minimum boundary, it is stated that companies may optionally choose to report "the life cycle emissions associated with manufacturing vehicles, facilities, or infrastructure."

From the Scope 3 Standard, p. 31:

- "Table 5.4 identifies the minimum boundaries of each scope 3 category in order to standardize the boundaries of each category and help companies understand which activities should be accounted for. The minimum boundaries are intended to ensure that major activities are included in the scope 3 inventory, while clarifying that companies need not account for the value chain emissions of each entity in its value chain, ad infinitum. Companies may include emissions from optional activities within each category. Companies may exclude scope 3 activities included in the minimum boundary of each category, provided that any exclusion is disclosed and justified. (For more information, see chapter 6.)"

Optionality of activities is indicated based on their expected low contribution. Following the accounting principles, however, companies still should quantify and report these optional activities if they are relevant.

Stakeholder feedback and practice review has indicated that the omission of optional activities creates discrepancies in accounting boundaries, somewhat reducing comparability of results.

It should therefore be considered whether the minimum boundaries should be expanded to require some or all activities that are currently indicated as optional.

The decision made to resolve question 1 (Should companies be required to assess relevance?) has implications for this discussion. The revised text for option 1B is as follows:

> "Companies **shall** follow the principles of relevance, completeness, accuracy, consistency, and transparency when deciding whether to exclude any activities from the scope 3 inventory. Companies **shall not** exclude **any** activities from the scope 3 inventory that would compromise the relevance of the reported inventory."

If option 1B (requiring consideration of relevance in setting the inventory boundary) is undertaken, then the parameter of relevance becomes decisive in the inclusion and exclusion of activities, including optional activities. Such, activities that would present to be relevant would have to be accounted for and reported, despite their (current) optionality; and activities that do not show to be relevant, they could be excluded on that basis independent on their requirement or optionality. From that perspective, optionality of activities would effectively not bear a meaning for accounting and the could be removed.

The following three options are proposed for consideration:

Option 5A. Maintain optionality of specific activities

This option would maintain the current language in the Scope 3 Standard that defines specific activities as optional. Companies could continue to choose whether to report on the optional activities. Their inventories are still considered complete even when optional activities are excluded.

Option 5B. Optionality is removed, with all activities included in required minimum boundary

This would remove optionality as part of the minimum boundaries, requiring the company to report all emissions for a category. Companies would still be able to exclude specific emissions sources. The specific means of exclusion would depend on the decisions for earlier questions in this paper. Possible means of exclusion could include de minimis and/or relevance criteria.

Option 5C. Updates to optionality of specific activities is considered on a case-by-case basis

For this option, the specific activities currently defined as optional would each be reviewed. For each optional activity, it would be determined whether that activity would remain optional, or if it would become part of the minimum boundary.

Decision-making criteria consideration

Alignment with criteria is described as low alignment (orange), medium alignment (yellow), or high alignment (green). The table below is a preliminary assessment for Technical Working Group discussion.

Table 11. Decision making criteria: Should the optionality of activities in minimum boundaries be changed?

Criteria	**Option 5A: As is: optional activities; companies may account for and report optional activities**	**Option 5B: activities optionality is dissolved; companies shall account for and report all activities in the minimum boundaries unless justifiably excluded**	**Option 5C: Consider currently optional activities on case-by-case basis**
Scientific integrity	Largely NA	Largely NA	Largely NA
GHG accounting and reporting principles	Cons: Potentially challenging relevance and completeness when optional activities are relevant.	Pros: More emphasis on relevance, likely increased completeness and consistency; somewhat improvements on transparency	Pros: Likely increased completeness, Likely allows for more (category-) specific relevance;

Support decision making that drives ambitious global climate action	Pros: allows to focus on the activities shown to be on average the most relevant for action. Cons: potentially overlooks emissions relevant for action if optional activities are significant	Pros: Potential for uncovering relevant activities previously omitted, for taking action. More consistency and transparency cross-organizationally may increase clarity on higher level policies. Cons: Additional estimations burden that may be carried out at the cost of action	Pros: Potentially better insight into relevant emissions provides the ground for action Cons: Additional estimations burden that may be carried out at the cost of action
Support programs based on GHG Protocol and uses of GHG data	Pros: largely interoperable Cons: Low support to external users of information - activities inclusion is often unclear and their relevance for decision making is not disclosed; impeding interpretation for decision making and cross-company considerations.	Pros: Medium to high support of users: a set range of activities is in scope, relevance is (potentially) indicated for exclusion. Facilitates cross-company comparisons. Cons: adjustments might be needed in sector standards to ensure interoperability	Pros: a set range of activities is in scope, relevance is (potentially) indicated for exclusion. Cons: inclusion of activities that are left optional may be unclear, with their relevance not addressed. Adjustments might be needed in sector standards to ensure interoperability
Feasibility to implement	Pros: feasible, allowing exclusion of specific activities listed as optional	Cons: Additional burden for accounting for and reporting previously optional activities. Moreover, their inclusion may cause additional adjustments needed to already established baselines and methodologies.	Cons: Additional burden for accounting for and reporting of previously optional activities. Moreover, their inclusion may cause additional adjustments needed to already established baselines and methodologies.

8. Should organizations be required to carry out a hotspot analysis as a step towards setting the inventory boundary?

Some of the options described above increase the data collection and analysis burden for preparers. For example, demonstration of whether an activity meets the relevance (or significance) criteria of magnitude inherently requires some data collection to see if that activity meets the criteria of size. Similarly, claiming an emissions sources as de minimis would require some justification and documentation that the source is, indeed, de minimis.

Hotspot analysis is one solution that could provide a single high-level emissions estimation to inform scope 3 boundary setting and exclusion decisions. Hotspot analysis can be undertaken as a spend-based emissions estimate or a (conservative) assumption-based / proxy-based calculation. It is more feasible than more detailed scope 3 estimates that use a mix of primary and secondary.

In the current Scope 3 Standard, use of secondary data and proxy data is recommended for identification of value chain emission hot spots, which in turn supports some of the inventory preparation objectives.

The Scope 3 Standard recommends but does not require hotspot analysis. Guidance and recommendations on using initial GHG estimation (or screening) methods for prioritization is provided in section 7.1 of the standard.

Option 6A. Maintain recommendation for hotspot analysis (as is)

This option would maintain the current recommendation to complete a hotspot analysis. Preparers would be free to carry it out or not, as well as to choose their own approach for documenting and justifying relevance and de minimis, if adopted.

Option 6B. Require hotspot analysis

This option would require all companies to carry out a hotspot analysis for its scope 3 inventory.

Hot spot analysis (hotspotting) may bring the following benefits:

1. Assessment of emissions on a higher level with data of lower certainty or quality. The assessments may then be provided to avoid omissions of activities in the inventory (if a lower quality inventory is acceptable), or support omission of these emissions from the inventory with provision of high level estimation of the omissions (if a higher quality of inventory is sought).
2. Facilitate introduction of a clearer quantitative significance or de minimis threshold procedure to determine significance or relevance of emissions sources
3. Remove optionality from the minimum boundaries of categories, closing the pre-set assumption of their irrelevance, and choosing the activities relevant for further, more rigorous accounting
4. Help close the reporting gaps when a chosen ESG reporting framework or regulatory framework requires reporting of all 15 categories.

Decision making criteria considerations

Alignment with criteria is described as low alignment (orange), medium alignment (yellow), or high alignment (green). The table below is a preliminary assessment for Technical Working Group discussion.

Table 12. Decision-making criteria considerations: : Should organizations be required to carry out a hotspot analysis?

Criteria	Option 6A:	Option 6B:

	Maintain recommendation for hotspot analysis	**Require hotspot analysis**
Scientific integrity	Largely N/A	Largely N/A
GHG accounting and reporting principles	Cons: potentially challenging relevance and completeness if chosen not to carry out	Pros: promoting relevance, completeness, and potentially transparency (at least for internal stakeholders)
Support decision making that drives ambitious global climate action	Cons: potentially overlooking relevant actionable emissions if the inventory has exclusions without estimations.	Pros: better insight into relevant emissions to inform and prioritize action
Support programs based on GHG Protocol and uses of GHG data	Pros: interoperable, allowing preparers to choose the system that fits their frameworks Cons: when chosen not to carry out, limits support to users regarding the transparent overview of the estimated emissions and validity of the action plan	Pros: Interoperable High support to users, providing support to users regarding the transparent overview of the estimated emissions and validity of the action plan
Feasibility to implement	Feasible, giving wide discretion to the preparer	Pros: allows to inform the prioritization and resources allocation in data collection and calculations further. Cons: Additional burden that may be perceived differently among diverse groups Additional guidance on the methods of hot spot analysis might be needed

The introduction of a mandatory hot-spotting procedure needs also to be considered in the context of updating the approach to inventory quality in the scope of work of the Scope 3 TWG subgroup A. Hot spot analysis, being usually based on lower quality and more accessible data, may find its place in developing a data quality hierarchy and resulting ways of reporting scope 3 emissions.

Potential recommendations will be considered further by the Scope 3 TWG subgroup A.