Scope 3 TWG Phase 2 Meeting Minutes

Meeting 1
Date: August 28, 2025
Time: 09:00 – 11:00 AM ET
Location: Virtual

Attendees

Technical Working Group Members

1. Sahil Aggarwal, Siemens Healthineers
2. Nasser Ayoub, EPD International
3. Alissa Benchimol, Greenhouse Gas Management Institute
4. Zola Berger-Schmitz, Science Based Targets initiative
5. Lindsay Burton, Ernst & Young
6. Diane Buzea, WBCSD
7. Bin Chen, Fudan University
8. Leo Cheung, The Carbon Trust
9. Betty Cremmins, Independent
10. Verena Ehrler, IESEG School of Management
11. Holly Emerson, Duke University
12. Talita Esturba, WayCarbon
13. Victor Gancel, Danfoss
14. Rene Garrido, Universidad de Santiago
15. Alasdair Hedger, Ellen MacArthur Foundation
16. Ashwini Hingne, WRI
17. Mitavachan Hiremath, SusPoT – Center for Sustainability
18. Susanne Vedel Hjuler, Independent
19. Tom Jackson, Loughborough University
20. Alexandre Kelemen, Mangue Tech
21. Meghan Kennedy, NetApp
22. Michael King, Cisco Systems, Inc.
23. Aysegul Koseoglu, Inter IKEA
24. Marion Kurdej, EcoAct
25. Tim Letts, WWF
26. Alan Lewis, Smart Freight Centre
27. Thea Lyngseth, ECOS
28. Ryan Maloney, Apple
29. Nadia Montoto, KPMG
30. Elliot Muller, CIRAIG, Polytechnique Montreal
31. Nicola Stefanie Paczkowski, BASF
32. Colin Powell, PwC
33. Ellen Riise, Essity Hygiene & Health AB
34. Benedicte Robertz, Umicore
35. James Salo, S&P Global Sustainable1
36. Fabiola Isabel Schneider, University College Dublin
37. Howard Shih, Science Based Targets initiative
38. Julie Sinistore, WSP
39. Alan Sean Somerville, University of Stirling
40. Arundhati Srinivasan, Maersk
41. Michael Taptich, Amazon
42. Enric Tarrats, Banc Sabadell
43. Francesca Testa, CDP
44. Carl Vadenbo, ecoinvent association
45. Ulf von Kalckreuth, Deutsche Bundesbank
46. Junfeng Zhao, GSG

Guests

N/A

GHG Protocol Secretariat

1. Alexander Frantzen
2. Claire Hegemann
3. Allison Leach

4. Dario de Pinto
5. David Rich

Documents referenced

2. Scope 3 – Phase 2 – Meeting 1 - Presentation – 20250828 ("Presentation")

Summary

Item	Topic and Summary	Outcomes
1	**Attendance and housekeeping** The Secretariat presented the meeting agenda, housekeeping rules, and decision-making criteria.	N/A
2	**Timeline for Phase 2** The Secretariat presented the schedule of meetings for phase 2 of the TWG.	N/A
3	**Revision considerations** The Secretariat presented proposed revision Series D., Boundary considerations.	N/A
4	**Next steps** The Secretariat presented the next steps.	The Secretariat will circulate a post-meeting survey to conduct another round of indicative voting on the proposed revisions in Series D. The next meeting is on September 18th, at the alternated meeting time of 4 – 6pm ET.

Discussion and outcomes

1. Attendance and Housekeeping

- Refer to Presentation slides 2 – 7.
- The Secretariat presented the meeting agenda, housekeeping rules, and decision-making criteria.

Discussion

- N/A

Outcomes

- N/A

2. Timeline for Phase 2

- Refer to Presentation slides 8 – 11.
- The Secretariat presented the schedule of meetings for phase 2 of the TWG.

Discussion

- N/A

Outcomes

- N/A

3. Revision considerations

- Refer to Presentation slides 21 onwards
- The Secretariat presented proposed revision Series D for category-specific boundary considerations.

Discussion

D2. Category 3 (NOTE ON INDEXING[1])

- A TWG member asked for further clarification regarding consistency across categories, specifically, if the same cradle-to-gate inclusion of the embodied emissions of capital equipment used to perform an activity, as proposed for some categories, would apply to category 1 activities (e.g., purchased products). The member gave an example of buying a widget: whether the embodied emissions from constructing the machinery/factory used to manufacture widgets would be allocated per widget?
    - The Secretariat replied that this had been considered and might need to be added for consistency. However, few LCA emission factors include these emissions in their boundary, which could make it unreasonable to require reporting companies to include said emissions.
    - The TWG member agreed, stating that they do not yet have a strong opinion either way, but wanted to raise this issue. If the goal is to report everything in as much detail as possible, then this boundary should be extended to category 1; but, taking into account a cost-benefit analysis, this is likely insignificant (by magnitude) for many if not most category 1 activities.
- A TWG member stated that few well-to-tank (WTT) emissions factors for fossil fuels include the emissions from manufacturing the equipment used to produce, process, or transport fuels. The member asked what the benefit is of estimating these emissions, as calculation would be unreliable and difficult, especially in the near term. Finally, feasibility may improve if this boundary extension were applied to all scope 3 categories.
- A TWG member stated that the merit of this revision is clear. What is important, is the 'how', stating that there will be big gaps in data and thus calculations. If guidance on reliable data sources is provided, then this requirement may be feasible; absent reliable data sources, the Standard needs to provide quantification guidance on the 'how'. The projected lifetime of equipment and buildings shapes significance (i.e., a 100-year vs. 5-year projected lifetime markedly changes the significance). Absent guidance, companies may quantify and report highly variable numbers.
- A TWG member commented that for category 1, having access to the information is even more difficult, stating that they would refrain from adding this to category 1.
- A TWG member stated that the key issue here is about when it is material. Feasibility has to be weighed with impact, and efforts need to be aligned with the materiality of the category activity.
- A TWG member stated that part of the issue is the lack of available standardized emission factors. This is part of the work on ISO 14083, which includes an annex with exactly what is being proposed here, stating that this should be included in a calculation, recognizing that many emission factors do not have it, but recommending that they should. From a harmonization of standards perspective, the member supports this proposal as a step in the right direction. If the Standard does not ask for this, then there will never be enough pressure on emission factors to include it. The member is in strong support of the revision, even if it is more of an aspiration, and reporters can state whether the emission factor that they are using includes it or not.
- A TWG member asked how effectively these emissions can be calculated, and how much insight companies really have. The member expressed concern regarding the length of amortization periods, and the treatment of legacy infrastructure. They commented that entrenched infrastructure would get a pass, while new renewables infrastructure would be penalized. The member asked why this should

[1] NOTE: Category 3 revisions have been re-indexed as D3.1, D3.2, etc., from Meeting 03 onwards.

be required for category 3, but not for categories 4 or category 9. They expressed skepticism about including these manufacturing emissions in general, proposing to make this an optional element for now and seeing if emission factors are updated, if there is uptake of this approach. The member has real concerns about making it mandatory.
    - The Secretariat clarified that the inclusion of emissions associated with manufacturing facilities and equipment used to extract, refine, and transport fuels or to generate electricity would apply to all fuel and energy sources irrespective of when they were built. In all instances, the emissions associated with facilities and equipment would be amortized over the estimated or projected lifespan unit output (e.g., barrel of oil or MWh of electricity).
- A TWG member stated that the inclusion of emissions associated with manufacturing equipment or facilities should be considered from a sector-specific perspective. It seems doable for the fuel industry, but not for many small businesses or users. The member questioned the 'why' of applying this cross-sectorally. There are benefits to introducing this as a specific revision for fuel and electricity. For electricity, however, this might open up the same problems that market-based and location-based did for scope 2. The application of this revision to specific sectors makes more sense.
- A TWG member asked what the end goal of the revision is, whether it is to enable as many people as possible to report emissions, or to set an ambitious benchmark. Sometimes the goal is not clear enough. If the goal is to create the benchmark, then this revision has to be included. Then the question becomes what the default emission factors to use are. Reporters need meaningful information, and we need default emission factors that include this. If a reporter does not have the information, then they should state that they don't. The member supports including this revision and making it a benchmark standard.
    - A member agreed with the previous speaker.
- The Secretariat stated that feasibility is one of the five decision-making criteria, and the "… criteria are ranked in a hierarchy to aid in decision making."[2] Solar and wind energy is not zero carbon if you include the emissions associated with constructing generating facilities. The idea behind requiring this explicitly would be so that these emissions, which are a material component of decarbonization and for which a portion of the remaining carbon budget should be allocated, are tracked. Not including these emissions could be deemed unscientific and could threaten the accounting principles in terms of completeness and relevance. Regarding amortization, precedent from financial accounting (e.g., IFRS or GAAP) or estimates from organizations like National Renewable Energy Laboratory (NREL) could be referenced to stipulate amortization schedules.
- A TWG member agreed that renewables also cause emissions, with the caveat that in terms of a reporting company's ability to influence and drive reduction, there is not much a company that has already shifted its energy mix to renewables can do to further reduce said emissions.
- A TWG member agreed that materiality should guide this decision. If a materiality threshold for inclusion for different products, fuels, categories, etc., were added, no inconsistencies would arise.
- A TWG member added that it would be good to get assumptions consistent with a firm's reporting, (e.g., for car manufacturers, the same lifetime that is reported to the customer should be used as a basis for emissions calculations).
- A TWG member stated that the reuse of critical raw materials should be incentivized, and that the amortization approach might enable that.
- A TWG member stated that a lot of this comes down to the lack of standardized emission factors.
- A TWG member recommended framing the inquiry in terms of: what would drive more increases in non-fossil (renewable) energy sources. The amortization of a facility that has been online since the 1960s will be de minimis compared to a new facility coming online now. The revision should not disincentivize progress. The goal should be to keep the momentum going.
- A TWG member agreed that the full(est) lifecycle emissions of fuel and energy should be reported. The member also pointed out minor text edits to proposed revisions D2a and D2b.
- A TWG member stated that most non-energy producing or generating companies will have more impact by switching fuels, adding that they do not think that this category will drive impact.

[2] Annex A: Decision-making criteria (https://ghgprotocol.org/sites/default/files/2024-09/Governance-Overview.pdf): (1A) scientific integrity; (1B) GHG accounting and reporting principles; (2A) Support decision making that drives ambitious global climate action; (2B) Support programs based on GHG Protocol and uses of GHG data; (3) Feasibility to implement.

- A TWG member agreed but added that it is still important to know the true impact of the change made, or at least a good estimate.

D3. Category 4 & 9 (NOTE ON INDEXING[3])

- A TWG member commented on revision D3a, voicing their strong support for cradle-to-gate emission factors, and voting against optionality. It should be required as well. GLEC includes a requirement for unladen backhaul, which is being written into ISO, so having this as optional here is nonsensical and out of date. The member expressed their strong opinion that leaving this as optional is not the way forward. The member also stated that the wording regarding unladen backhaul is misleading, as there are many ways transport is organized.
  - Two TWG members agreed with the previous speaker.
  - A TWG member commented that it would make sense to require this in the GHG Protocol, in order to keep alignment with ISO.
- A TWG member stated that there is inconsistency here between requirements versus optionality and that if the goal is to meet scientific integrity, it needs to be reconsidered.
- A TWG member added that considering the importance of standardizing requirements between ISO, GHG Protocol, and SBTi, and that this is already required by many standards outside of GHG Protocol, they recommend a well-to-wheel (WTW) (cradle-to-grave) boundary be explicitly called out for all transport categories (e.g., categories 4, 6, 7, and 9), as opposed to just upstream (cradle-to-gate).
  - A TWG member added that the terms should be clearly defined in the glossary, as they understand that WTT or WTW boundary terms directly relate to energy or fuel inputs, while the cradle-to-gate boundary term is used broadly for various activities
- A TWG member asked if full life cycle is meant where it currently says cradle-to-gate for purchased energy, in the column, "Notes", for revision D3a-2?
  - The Secretariat said that it is, combining D3a-1 and D3a-2 would effectively mean the inclusion of the full life cycle (or well-to-wheel) emissions of purchased fuels and the full life cycle emissions of purchased electricity. The Secretariat asked if the emissions associated with manufacturing capital goods (i.e., revisions D2a and D3b) should be included for fuel and electricity used by transportation and distribution providers?
  - A TWG member replied that it should in order to mean full life cycle. At the moment, some emission factors that do (e.g., Ecotransit, which is a market leader that has gone a long way to include it). But not all competitors include it, and not all general or publicly available emission factors do or could. It is important to set the bar here, to aim for this, and if your emission factors don't include it, or you don't know, then that should be stated transparently.
  - A TWG member added that this becomes more important with renewable energy use.
- A TWG member added a point on differentiating between upstream category 4 and downstream category 9. As per the Standard, if a reporting company pays for transportation and distribution (T&D) services, then those emissions are upstream T&D (Category 4); while often in general business, upstream means whatever arrives at the factory or company gate. Company-to-customer T&D services, regardless of whether or not they are paid by a reporting company, are considered downstream from the factory or company gate, i.e., downstream T&D (Category 9). This convention is followed across all ERP systems (e.g., SAP, Oracle, etc.). The member proposed aligning with this general business interpretation. This classification practice could help to calculate the emissions intensity of products in a manner consistent with the Product Standard by GHG Protocol.
  - Added by the Secretariat, concerning the Product Standard: "Transportation to the production facility and within extraction and preprocessing facilitates" is identified within the "Material acquisition and preprocessing stage"; and "Product distribution and storage" includes transportation and distribution activities following the "Production" stage.[4]
  - A TWG member agreed, stating that there is widespread confusion about this distinction.
- A TWG member pointed out that a lot of companies currently struggle with the distinction between categories 4 and 9 and the wording, because category 4 covers upstream in terms of supply chain

[3] NOTE: Category 4 and Category 6 revisions have been re-indexed as D4.1, D4.2, etc. and D9.1, D9.2, etc., respectively, from Meeting 03 onwards.
[4] (*Product Standard*, p. 38-39, Chapter 7, Boundary setting)

and where upstream/downstream services are purchased (paid for) by the reporting company; and downstream exclusively for services that are not purchased (nor paid for) directly by the reporting company.

- A TWG member stated that the present guidance is complex, but that their employer has developed their internal ESG data management software to ensure conformance with the GHG Protocol's requirements (in this case, classifying downstream T&D services *paid* by the employer, i.e., reporting company, as Category 4). The member assumes that many reporting companies likely have built their data management solutions to ensure GHG Protocol conformance.
- Separately, the TWG member stated that classifying category 4 separately makes sense, given that reporting companies often have more influence over upstream and/or purchased T&D services (organized directly by the reporting company) compared to downstream T&D services for which reporting companies don't pay.
- A TWG member stated that one reason why it could make sense to amalgamate categories 4 and 9 is that the current split dilutes the overall visibility and impact of freight transport. Transport is a stubbornly high emitter that is often difficult to decarbonize (e.g., air freight), and anything to make this more visible would be an improvement.
- A TWG member added that while calculation methods in ISO is similar for upstream or downstream T&D, however, in practice it is much more likely that secondary data will be used for category 9.
    - A TWG member said that influence pathways, decision-making, accountability, and data are fundamentally different across the two categories.
- They oppose merging upstream and downstream transport into a single reporting category. In practice, the delivery destination depends on where the customer wants the goods sent. Although the customer covers shipping costs (as an added markup cost), the contractual responsibility (under Incoterms) for the goods and transport stays with the selling company until delivery. However, a company that is fulfilling customer requests has limited influence. The member proposed an ad-hoc meeting dedicated to transport emissions, upstream, downstream, business travel and commuting.

D4. Category 5 (NOTE ON INDEXING[5])

- A TWG member asked if there is any support for incorporating the transport of waste (category 5) into category 4 or category 9.
    - A TWG member replied that this could make sense.
    - A TWG member replied that they do not have a strong opinion, other than process-related considerations. Category 4 is mostly driven by freight procurement teams related to supply chain activities, while the transport of waste is typically handled by separate teams with less visibility of the routes, etc.
- A TWG member asked if there is any support for simplifying freight transport by amalgamating category 4 and category 9 (and possibly including the transport of waste as well). This would remove a current source of confusion for companies that rely on contracted transport services.
    - The member agrees that category 9 is usually the trickiest to explain to colleagues. They were unsure if they should be amalgamated and unsure what would be gained by bundling them. A reporting company's ability to influence either varies significantly. The member stated that expectations for category 4 and category 9 differ; the latter is largely driven by a company's business model, engagement with customers, and distribution strategy.
    - The TWG member who proposed amalgamation added that there is nothing stopping reporters from keeping an internal subcategorization despite amalgamating category 4 and category 9 for public reporting purposes.
    - A TWG member asserted that the categories are fundamentally different in nature.

[5] NOTE: Category 3 revisions have been re-indexed as D3.1, D3.2, etc., from Meeting 03 onwards.

D5. and D6. Category 6 & 7 (NOTE ON INDEXING[6])

- A TWG member asked for clarity regarding the distinction between pre-sale versus post-sale clients/end users; including why account for the former is optional versus the latter being required.
- A TWG member stated that the clause in revision D6a is extremely broad and starts to look like customers are included. For example, if you are a gym operator, with clients who regularly commute to the gym, should you be reporting their commute? There are instances where a contractor, such as a janitorial contractor, has a regular commute. In other instances, contractors are one-off. The term consultant could broaden this to include any business guest (e.g., government inspectors). This revision would see companies spend excessive time collecting mileage records for one-off, small trips—at the expense of taking action on the bulk of emissions sources (e.g., purchased goods or product use). For this reason alone, it is not appropriate to require such commuting activities.
- A TWG member stated that requirements need to be kept simple to encourage companies to report. The member suggested providing standardized emission factor values for reporting companies to use. It's often difficult to collect data (e.g., for a plane ticket). It would be helpful for many companies if GHG Protocol specified a standard value that companies can use if they do not have any specific or primary data. The member acknowledged that establishing such standardized emission factors goes beyond the scope of the TWG and the Secretariat during this revision.
- A TWG member stated that defining 'employee' is critical to unambiguously distinguish employees versus consultants or other non-employees. This distinction should be more unambiguous than 'paid' or 'unpaid'. SBTi defines employee through the contract type. The member encouraged a clear definition of what an employee is based on contractual legal status. Concerning category 7, in particular, the member encouraged including teleworking (remote work) in the minimum boundary. Many companies currently trying to reduce their category 7 emissions are trying to adopt more hybrid or work from home employment contracts and work circumstances.
- A TWG member recommended adding more guidance for how reporting companies can or should account for emissions from remote work by consultants of a reporting company. This could be framed as remote work, since it is not at the employer's site. That clarification would be helpful.
- A TWG member asked if the Secretariat could point towards more quantification guidance. Emissions from employee commuting is highly variable based on how it is estimated. More guidance would support consistency, which is an accounting principle, and enable decision-making across companies.
    - A TWG member agreed with the previous speaker, stating that using average commuting data is problematic and ineffective. It is very difficult to measure change over time or to derive actionable insights because the data will be generic.

D7. and D8. Category 8 & 13 (NOTE ON INDEXING[7])

- A TWG member recommended making it mandatory to include emissions associated with the manufacture or construction of leased assets by a lessee in Category 8. If it remains optional, it could result in superficial emissions reduction (e.g., for companies that lease assets versus purchasing assets, which is not an actual reduction in emissions, instead, it's an exclusion).
- A TWG member stated that the distinction between developers and owners is critical. SBTi makes that distinction very clear. The term (upfront) embodied emissions is used throughout literature on building embodied emissions because that corresponds with the category 2 boundary (purchased capital goods), as opposed to life cycle emissions.
- A TWG member asked if this depends on what is done with category 2? For consistency, the required inclusion of leased assets category 8, category 13, and category 2 should harmonize.
- A TWG member outlined an example where a port leases a building to another organization within the area, asking what the requirements would be the organization operating the building? It is not clear where the boundary is in all circumstances.

[6] NOTE: Category 6 and Category 7 revisions have been re-indexed as D6.1, D6.2, etc. and D7.1, D7.2, etc. from Meeting 03 onwards.
[7] NOTE: Category 8 and Category 13 revisions have been re-indexed as D8.1, D8.2, etc. and D13.1, D13.2, etc., respectively, from Meeting 03 onwards.

D11. and D12. Category 14 (NOTE ON INDEXING[8])

- A TWG member stated that they were not able to draw a parallel between upstream leased asset (category 8), downstream leased asset (category 13), and the franchisor (category 14) requirements. Is the franchisor supposed to report all scope 1, 2, and 3 emissions of a franchisee? It would seem inconsistent for a lessor to include some emissions of a lessee, while a franchisor shall include all scope 1, 2, and 3 emissions of a franchisee. The member sees serious feasibility concerns for companies in the hospitality industry (e.g., hotel chains) to include all emissions of a franchisee.
- A TWG member said that franchisors have a high level of procurement influence over franchisees (including franchisee scope 3 emissions), which is a very different from franchisees that operate independently of franchisors. The question remains: to what extent the legal arrangement should be relied on to determine the boundary for inclusion.
- A TWG member stated that the fast food example (for the recommended inclusion of franchisee scope 3 emissions) should be struck from Standard language, as it may limit interpretability (many franchisors may incorrectly determine that, because they don't franchise fast food chains, therefore they shouldn't consider including franchisee scope 3 emissions).
- A TWG member stated that the wording regarding licensing does not work, as IP licensing deals are not exclusively based on royalties. Sometimes there are fixed licenses, with upfront payment for an irrevocable license going forward. The proposal is a good approach for a very limited case, but will break in real world application because it does not anticipate the variability in how licensing agreements work. The licensee is doing work too, doing things to the product, the IP is only a fraction of what went into producing the product. In cases where a technology (rather than a brand name) is licensed the logic breaks.
- A TWG member stated that they abstained from voting because there are big differences in licensing, and that this is very focused on brands. There are many other types of licensing, and they should be represented. There is a difference between software IP and a sold product that is IP, and that distinction is not reflected here.
- A TWG member stated that there are different types of franchising and licensing; if the intent is to different requirements for franchises and licensing, then the definitions need to be nailed down.
- A TWG member asked how a case like Microsoft would be dealt with, which everyone licenses from Microsoft. How would Microsoft calculate the share of their licenses in the total licensing expenses of their clients, and how would they estimate the life cycle emissions of their clients? Many companies pay licenses for a multitude of software and data providers. Would they all need to take account of all emissions of their clients. If so, then how meaningful would this information be? And what could Microsoft do anything to reduce the emissions of their clients?

Outcomes
- N/A

6. Next Steps

- The Secretariat presented next steps

Discussion
- N/A

Outcomes
- The Secretariat will circulate a post-meeting survey to conduct another round of indicative voting on the proposed revisions in Series D.
- The next meeting is on September 18th, at the alternated meeting time of 4 – 6pm ET.

Summary of written submissions received prior to meeting

N/A

[8] NOTE: Category 11 and Category 12 revisions have been re-indexed as D11.1, D11.2, etc. and D12.1, D12.2, etc., respectively, from Meeting 03 onwards.