International Organization for Standardization
Organisation internationale de normalisation
Международная организация по стандартизации

PROPOSAL FOR AN INTERNATIONAL WORKSHOP AGREEMENT

A proposal for an International Workshop Agreement (IWA) shall be submitted to the secretariat of the Technical Management Board at ISO/CS (tmb@iso.org). Proposals will be referred to the ISO Technical Management Board for approval (4-week ballot).

Once the proposal for the IWA is approved by the TMB, the proposer will be requested to prepare an announcement/ invitation to the workshop, which will be circulated to the ISO members by ISO/CS. Please note that the announcement must be made at least 90 days in advance of the agreed date to allow potential attendees adequate time to plan on attending the workshop (Annex SI.3).

See the ISO Supplement Annex SI for full details of the Procedure for the development of IWAs.

Proposer

The German Standards Institute (DIN) will act as Secretariat.

The proposal originates from the Secretariats of the:

- Industrial Transition Accelerator, hosted by the Mission Possible Partnership; and
- Clean Energy Ministerial Industrial Deep Decarbonisation Initiative, hosted by the United Nations Industrial Development Organisation

Contact details of proposer

Name: Pete Hemingway

Email: pete.hemingway@missionpossiblepartnership.org

Name: Dan Hayes

Email: dan.hayes@missionpossiblepartnership.org

Title of the proposed IWA

Guidelines for harmonisation and interoperability of greenhouse gas accounting standards for industrial products

Purpose and justification

This International Workshop Agreement (IWA) aims to establish a common, global approach for harmonizing product specific greenhouse gas (GHG) accounting and lifecycle assessment (LCA) standards for industrial products (hereafter referred to as “product category rules” (PCRs)). International standards will support the formation and growth of markets for low emission industrial products, however, existing standards require improvement and harmonization to maximise utility for manufacturers, consumers and policymakers. Harmonizing standards will improve the interoperability of climate change related data for industrial products, in turn enabling low-friction international trade of low emission products, accelerating decarbonization of industry.

In this proposal, *industrial products* refers to products manufactured with intensive use of raw materials, energy, or capital. It includes but is not limited to steel, cement, aluminium, chemicals, hydrogen and its derivatives. These product categories have been chosen because their manufacture accounts for a significant portion of global emissions and/or these products will play an influential role in development and decarbonisation across the economy.

The IWA will aim to establish:

- general guidance for ISO Technical Committees to consider and pursue harmonization during development and revision of PCRs; and
- requirements that increase the specificity, consistency and coherence of PCRs for key sectors, limiting choice within the accounting process and highlighting cross-sectoral interactions.

Combined, these aims will create a framework for assessment, improvement and harmonization of PCRs, improving the utility and relevancy of international standards for industry, markets and policymakers.

This IWA will build on extensive work already conducted by ISO technical committees on PCRs, recognising in particular the work of ISO TC 207. This IWA will seek to address the challenges raised in this proposal at the product and/or sectoral level, utilising ‘general’ emissions accounting standards as a normative basis, including but not limited to ISO 14040, 14044, 14067 and 14025.

An IWA has been identified as the most appropriate mechanism to achieve these aims. The reasons for this are (1) the speed at which an IWA can be created, and (2) the breadth and open access for stakeholders from a range of sectors and organisation types.

The role of GHG emissions data for green markets

Quantitative information about the environmental impact of products is essential for enabling development of markets for low-emission products and is increasingly required in public and private procurement processes. Such data facilitates differentiation between lower and higher emission products, whether through raw data disclosure, labelling, or certification. Verified claims about a product’s environmental attributes help manufacturers justify higher costs or ‘green premiums’ to buyers and consumers. The green premium supports the business case for decarbonization and attracts investment in low-emission technologies.

Measurement and disclosure of product-level emissions is most often carried out using attributional accounting approaches i.e., taking a snapshot of conditions based on current or

recent data from production processes. This IWA will aim to focus on attributional approaches to GHG accounting and LCA. This is because attributional approaches provide information about the real-world impacts of products on the market today, which consumers can use to make informed purchasing decisions.

Current standards landscape and its challenges

Product-level GHG emissions data are typically calculated using PCRs. As highlighted by the ITA's standards landscape map, the landscape is crowded and diverse, with fragmentation of standards within and between different product categories and between standard setting bodies. Standards have been developed in both international and national standard setting organizations, global initiatives and by the private sector. A non-exhaustive list of relevant organizations and technical committees is provided in the table below.

Existing PCRs differ in their rules, requirements, and flexibility of approach to GHG emission accounting. This leads to significant variation in product studies and results in low interoperability and comparability of data outputs. The issue is particularly acute in the construction materials category but also affects the automotive and chemical sectors, and emerging sectors such as hydrogen and renewable fuels. Figure 1 illustrates the fragmentation of PCRs that use the general standards ISO 14025 and 14067 as normative references.

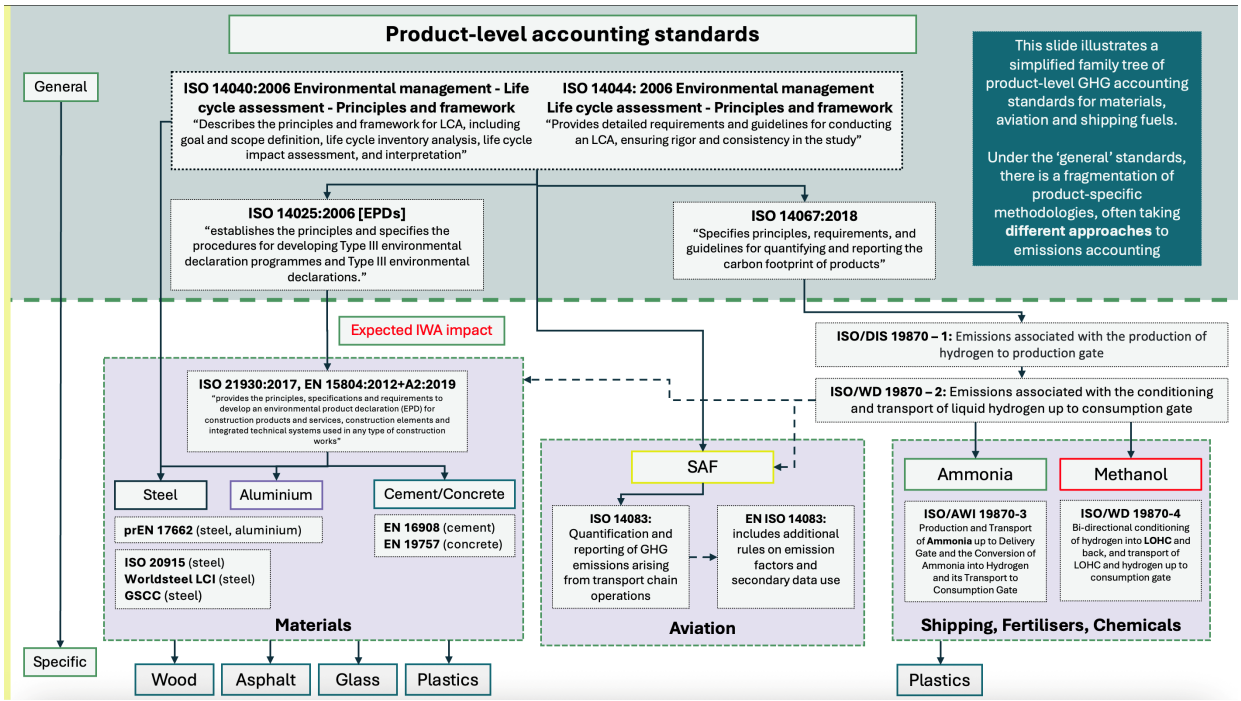

Figure 1, ITA. Chart illustrating the fragmentation of product category rules based on general lifecycle assessment and product carbon footprint standards. The IWA is expected to affect standards below the green dashed line. The chart is illustrative and does not include all standards, published or in development, that may or should be affected by the IWA. Any mislabelling of a standards as published or in development is unintentional. Figure updated after initial proposal review.

Impacts on industry and market access

When end-use sectors (e.g., construction, automotive) source products (e.g., steel, concrete, plastics) from different sectors and regions, they encounter various accounting methodologies. This creates administrative burdens for manufacturers that are required to report emissions data in multiple formats. This is especially impactful for micro, small, and medium-sized enterprises and those in developing countries, and ultimately limits the utility of emissions accounting standards. Buyers also face challenges, as they receive data calculated using a range of methodologies that are not easily comparable.

Public and private procurement policies (such as Buy Clean California and those developed by signatories to the First Movers Coalition and the IDDI) and import regulations (including the EU Construction Products Regulation and EU CBAM) increasingly require specific emissions disclosures for industrial products. As a result, GHG emissions accounting is directly linked to market access and this likely to continue.

Need for a harmonized approach

The need for harmonization of standards has been recognized by the CEM IDDI and Future Fuels workstream, the International Energy Agency's Working Party for Industrial Decarbonisation (IEA WPID), the Industrial Transition Accelerator (ITA), and the Steel Standards Principles (supported by the WTO and worldsteel). Furthermore, the COP Presidency has identified harmonization of carbon accounting approaches as a key objective of COP30.

A common, global approach set out in an IWA would support collaboration and shared practices among these forums and their respective stakeholders, promoting long-term harmonization and interoperability of PCRs for industrial products. Formalizing existing efforts through an IWA would provide a strong foundation for revision of existing standards and build perceived equity in the standards by stakeholders.

Harmonization is required within sectors where multiple approaches already exist and between sectors that coexist and compete in the market. To ensure that approaches in one sector are aligned with approaches in another (e.g., the embodied emissions of steel and concrete products are calculated in a similar way), the process of harmonization must be cross-sectoral from the start. Any approach taken in the IWA, and ultimately in harmonization of standards, must be applicable to sectors that are used together in finished products (e.g., steel, aluminium and glass in a building) and those that directly compete (e.g., concrete and asphalt for roads). Finished products such as buildings, infrastructure, vehicles and white goods are often comprised of multiple materials and ensuring that each product category is treated similarly is essential for fair assessment, comparison and competition on the market.

This work is expected to complement ongoing projects by the ISO CS on harmonisation of GHG accounting and LCA standards.

This IWA will seek to drive harmonisation and interoperability within specific sectors and cross-sectorally for products used by key industrial sectors including construction, automotive, and agriculture.

Target Audience

The primary audience for the IWA includes any organization that manages PCRs or other GHG accounting standards for industrial products. This encompasses technical committees (TCs) in ISO and CEN, global standards initiatives, and NGO or private sector certification bodies. The IWA will provide a common foundation for these groups to assess, communicate, and revise standards, ultimately improving the interoperability of GHG emissions data.

A draft outline of the document IWA chapter and headlines is also attached for information.

Does the proposed IWA relate to or impact on any existing work in ISO committees?

☒ Yes ☐ No

Please list any relevant documents and/or ISO committees

The IWA would be of interest to all TCs that manage standards related to GHG accounting and reporting, life cycle assessment of products/production and possibly standards related to chain of custody. The following TCs are listed numerically and SCs are included where specific response has been made to the proposal. *The list is not exhaustive and should not be considered limiting to the intended scope of the IWA or preferred participation in the process.*

- ISO/TC 17/SC 21
- ISO/TC 59
- ISO/TC 71/SC 8
- ISO/TC 146
- ISO/TC 197/SC 1
- ISO/TC 207/SC 5
- ISO/TC 207/SC 7
- ISO/TC 287
- ISO/TC 308
- CEN/TC 350

Relevant documents:

- IEA (2024) Definitions for Near-Zero and Low-Emissions Steel and Cement, and Underlying Emissions Measurement Methodologies. Link.
- IDDI (2023) Driving consistency in the GHG accounting system. Link.
- WTO (2000) Principles for the Development of International Standards, Guides and recommendations [principle 5. Coherence]
- IEA (2023) Emissions Measurement and Data Collection for a Net Zero Steel Industry. Link.
- Steel Standards Principles (launched 2023). Common emissions measurement methodologies to accelerate the transition to near zero. Link (updated Feb 2025).

Technical recommendations:

- IDDI (2024) Guidance for PCR Harmonization. Link. Relevant to ISO 21930 & EN 15804+A2, PCR for construction materials

Relevant stakeholders (list of organizations that may be interested)

Organisations listed alphabetically

- Clean Energy Ministerial Secretariat, and Future Fuels workstream
- Global Cement and Concrete Association, World Cement Association
- Global Steel Climate Council
- IPIECA
- International Aluminium Institute
- International Energy Agency
- International Fertilizer Association
- International Maritime Organization
- Low Emission Steel Standard
- The Methanol Institute
- ResponsibleSteel
- Science Based Targets initiative
- Signatories to the Steel Standards Principles
- World Business Council for Sustainable Development (related to the Greenhouse Gas Protocol)
- World Economic Forum (related to First Movers Coalition)
- World Resources Institute (related to the Greenhouse Gas Protocol)
- World Steel Association
- World Trade Organisation

Member body willing to act as secretariat

German Institute for Standardization (DIN) (contact Jorg Megow, Joerg.Megow@din.de)

Number of meetings to be held (if more than one is envisaged) and proposed dates

4-6 online, preparatory discussions October 2025 – Jan 2026
1 in-person, February 2026
1 online, finalisation, February-March 2026
March / April 2026

Annexes are included with this proposal (give details)

01. Draft chapter headings

ISO/CS initial assessment and proposer response

Consulted groups	Concise description	General recommendations	Proposer response	Proposers' recommended mitigation
ISO/TC 17/SC 21	There are more than dozens of calculation methodologies in the steel industry alone. Harmonization of standards within the steel industry is being promoted under the Steel Standards Principles Harmonization of standards with other sector is premature.	Encourage and prioritize harmonization within each sector. Duplication of work should be avoided and existing results should be used as much as possible.	Several coproducts from the production of steel are and sold to different sectors for a range of purposes, such as blast furnace slag and process gas, among others. Where coproducts cross system boundaries it is important that accounting approaches are aligned. In the case of blast furnace slag and process gases, alignment of approaches is required with the cement and power sectors respectively. When considering finished steel products, they are very rarely used in isolation. For example, steel is commonly used in the construction and automotive sectors alongside concrete, aluminium, glass and polymers. When considering the whole life carbon of complex end products, the LCA and GHG accounting community should aspire to align approaches for 'basic' materials. We (the proposers) recognise the importance of harmonisation of divergent approaches within sectors and draw on expert industry groups to guide those discussions (e.g., WorldSteel, ResponsibleSteel), and initiatives where work has already commenced (e.g., IDDI, Steel Standards Principles). However, solutions are required with haste and sequential development of sectoral and then cross-sectoral approaches would take too long, especially where cross-sectoral alignment would require adjustment to already agreed sectoral approaches.	We will explain in more detail the need for harmonisation of divergent sectoral approaches and cross-sectoral approaches at the same time.
ISO/TC 287	The proposed IWA significantly overlaps with the scope and deliverables of ISO/TC 287, particularly concerning GHG accounting for biogenic materials such as wood and derived products. Notably, the proposal omits any reference to the ISO 13391 series, which was recently published and provides robust, science-based guidance for GHG accounting across the wood value chain. This omission concerns the relevance and applicability of ISO 13391 to the subject matter of the IWA. Furthermore, the IWA proposal references external frameworks such as the GHG Protocol's Land Sector and Removals Guidance (LSRG), which has been the subject of scientific and technical criticism. The inclusion of such frameworks without adequate ISO oversight raises concerns about the integrity and coherence of the ISO standards system. Additionally, we propose that the IWA scope be revised to explicitly exclude areas already covered by ISO 13391 and other relevant ISO deliverables. This revision should acknowledge the existence and applicability of ISO 13391 and ensure that any new guidance does not undermine or contradict established ISO work.	The proposal is well-structured and addresses a relevant need for harmonization in GHG accounting. However, it lacks a comprehensive review of existing ISO standards and fails to acknowledge critical deliverables such as ISO 13391. We recommend that the proposal be revised to ensure alignment with ISO governance principles and to avoid co-branding or reliance on external frameworks that do not adhere to ISO's consensus-based processes.	The aim of the IWA is to ensure coherence and consistency between ISO standards that cover connected topics. We thank TC 287 for bringing the ISO 13391 series of standards to our attention as this will provide an increasingly important normative reference for the calculation of biogenic carbon when used as an energy source or material input to industrial processes, and when biogenic carbon containing materials are utilised in complex end products. We are happy to see that ISO 14020:2022 is listed as a normative reference to the ISO 13391 family due to its close applicability with ISO 14025 for Environmental Product Declarations. In this specific instance, a misalignment may remain between product-LCA standards that utilise the ISO 14020 family as a normative reference and those that utilise ISO 14067. The IWA will seek to drive alignment between these standards-families, further enhancing the utility of ISO 13391 in the LCA landscape. Mention of external frameworks in the proposal does not mean that we will adopt them by default. We highlight other frameworks to generate discussion, introduce new ideas into the ISO system, and to build bridges between committees/working groups in different organisations that cover similar topics.	We will consider making specific reference to the ISO 13391 family of standards and/or ISO/TC 287. We will consider how LCA and GHG accounting standards not related to ISO 14020 could be adapted to make use of this work. We reject the assertion that the coverage of a topic in an existing standard should preclude discussion in this IWA. Per ISO guidance, IWAs can discuss and provide recommendations on topics covered by existing standards, which can be assessed and possibly adopted by TCs in future standards revisions.
ISO/TC 71/SC 8	The priority areas in the proposed programme of work can only be standardized effectively if carried out in conjunction with ISO/TC 71/SC 8. ISO/TC 71/SC 8 develops several standards which are highly related to GHG calculations. These include, for example, ISO 13315-2 and ISO/WD 21282-1, 21282-2 and 21282-3. Because the scope of these standards includes the use of by-products from other industries as concrete constituents and carbon sequestration accounting, the proposed IWA activity is highly related to our activity	We also express our concerns that Figure 1 of the IWA proposal do not refer to the ISO standards developed in ISO/TC 71/SC 8. As this IWA proposal is focused on "construction sector" (as found in the proposal), the proposer of IWA should not ignore the activities of ISO/TC 71.	Thank you for bringing these standards to our attention. Standards listed in the proposal are not exhaustive nor do they represent the total scope of the IWA.	We gladly accept the insights of ISO/TC 71/SC 8 in the IWA process and will update Figure one to reference standards in the TC 71 family

ISO/TC 17/SC 21	1. Yes. The scope of this IWA overlaps with the scope of TC 17 Steel, SC 21. 2. Yes. The scope of this IWA overlaps with the scope of ISO 207 Environmental Management. Yes. The scope of this IWA overlaps with ISO/TC 59/SC 17 and CEN TC 350 which has the ownership of EN 15804 with amendments and pR EN 17662 (steel and aluminium) Proposed change: 1. In this committee we are just now working with a revision of ISO 20915 Life cycle inventory calculation methodology for steel products, where both allocation procedures and the value of scrap is part of the discussion. 2. ISO 14067 Carbon footprint of products and ISO 14025 Type III environmental declarations are under revision. There is also a new work initiated by ISO/TC 207/SC 5 Life Cycle Assessment. There is *a call for experts to participate in the strategic task group to develop a work program for the subcommittee SC 5 which is responsible for ISO 14044 and 14044*. 3. ISO 21930 and CEN 15804 both provide principles, specifications and requirements to develop an environmental product declaration (EPD) for construction products. In these standards they are using different modules during the buildings lifetime which is specific for the construction sector. Secure good liaison relationships with experts from ISO TC 17/SC 21, ISO 207 SC 5 and 7 and CEN 350 Review if it is possible to have a joint working group with representatives from the three ISO TC:s ISO TC 17/SC 21, ISO TC/207 SC 5 and 7, ISO/TC 59/SC 17. If this is not possible secure efficient liaison with experts from the above ISO Technical committees.		Thank you for the comprehensive overview of ongoing work in various ISO TCs and for the suggestion to develop a joint WG (or ensure efficient liaison) between key members of the mentioned TCs.	We will endeavour to build a close working relationship between experts from ISO TC 17/SC 21, ISO 207 SC 5 and 7 and CEN 350 to support this IWA.
ISO/TC 167:	1. No 4. The issue of allocation of co-products between for example steel and concrete industries is perhaps a too complex process to be decided in a workshop agreement. Additional information: More specific hierarchy for co-product allocation is currently under development during revision of ISO 14067 (ISO/TC 207/SC 7).	Click here to enter text.	Thank you for bringing the coproduct allocation hierarchy work in ISO/TC 207/SC 7 to our attention. We agree that it is unlikely that we will find x-sectoral agreement on longstanding and contentious topics. This IWA can create a framework for approaching and assessing such topics, based on previous issues that have been solved.	Highlight that this IWA can create a framework for approaching and assessing such topics, based on previous issues that have been solved.
ISO/TC 59	Having reviewed the proposal against the scope and standards under TC 59, we do see a thematic and technical overlap with ISO/SC 17 Sustainability in buildings and civil engineering works. The proposal references several of the same ISO standards that are used as normative bases in SC 17 and also touches on elements that are closely linked to the ongoing collaboration with CEN/TC 350. While TC 59 recognizes the relevance of this topic, particularly with respect to materials used in the built environment, we have not yet concluded discussions on what mitigation strategy would be most appropriate. Due to time constraints, we have not had the opportunity to consult in detail with our TPM. However, we do see the value in further coordination, and that a link with SC17 and TC 350 is more than essential.	Click here to enter text.	Thank you for the in-principle support of the IWA.	We will endeavour to build a close working relationship between experts from ISO TC 59 /SC 21, CEN/TC 250 and other ISO TCs mentioned to help inform the IWA.
ISO/TC 207/SC 7	For question 1, it is evident that the scope of the IWA overlaps with ours, not only with ISO 14067 cited in the proposal, but more importantly the ISO 14064 series, which members noted	In terms of general comments on the proposal, here's a synopsis of the input from our members:	We will review the listed standards and consider inclusion in the IWA proposal as part of the stated aim. The IWA, due to the general nature of the output, will be applicable	Refocus the proposal on core standards for product and production emissions accounting.

	should be referenced in this IWA. The following is a list of several standards identified by our members as being relevant but absent from figure 1 in the IWA: • ISO/FDIS 13391-1 • ISO 14064 • ISO 16759 • ISO 19694 • ISO 20294 • ISO/FDIS 20423 • ISO 22526 • ISO 22948 • ISO 6338 We also wanted to highlight that ISO 14040 and 14044 were published some time ago while ISO 14067 is currently under revision. This raises a concern that new/different requirements may be included in the IWA that would render it incompatible/inconsistent with these standards. So, there is a definite need for ISO/TC207, particularly SC7, to be involved in the development of this IWA. We have members who are willing to participate directly in the work, if it is approved by TMB, so a liaison would likely be feasible. In terms of general comments on the proposal, here's a synopsis of the input from our members: The proposal needs to clarify whether this IWA is about GHG accounting in the narrow sense and, hence, covers only part of the applications of the standard, or is it about GHG accounting in a much broader sense that covers all applications of the standards. Meanwhile, sector specific standards for some materials/fuels indicated in clause 6.2.2 have already been published and should be followed in this IWA. However, the IWA as it is outlined now would not be able to adequately address all the specific issues for some sectors, such as the chemical industry where there are too many variations and differences in individual product classes, which in turn would reduce the acceptance of the IWA. Furthermore, several technical committees, such as ISO/TC 146/SC 1 and ISO/TC 207/SC 7, are already actively engaged in GHG accounting and harmonization, so the intended objective of this IWA may be better addressed by building on existing standards like ISO 14067, ISO 14064, ISO 21930, and the ISO 19694 series.	The proposal needs to clarify whether this IWA is about GHG accounting in the narrow sense and, hence, covers only part of the applications of the standard, or is it about GHG accounting in a much broader sense that c overs all applications of the standards. Meanwhile, sector specific standards for some materials/fuels indicated in clause 6.2.2 have already been published and should be followed in this IWA. However, the IWA as it is outlined now would not be able to adequately address all the specific issues for some sectors, such as the chemical industry where there are too many variations and differences in individual product classes, which in turn would reduce the acceptance of the IWA. Furthermore, several technical committees, such as ISO/TC 146/SC 1 and ISO/TC 207/SC 7, are already actively engaged in GHG accounting and harmonization, so the intended objective of this IWA may be better addressed by building on existing standards like ISO 14067, ISO 14064, ISO 21930, and the ISO 19694 series.	across a broad range of standards and not just those explicitly named. We understand the concerns around ISO 14040, 14044 and 14067. We intend to work closely with those connected with 14067. The nature of the IWA is such that, where a possible improvement to the standards landscape is identified (e.g., by making a change to an existing standard), we will make that recommendation in the IWA for the broader benefit of the product-LCA ecosystem. Recommendations made in an IWA are not requirements and can be assessed by relevant TCs in relation to their standards. The nature of our proposal is such that compromise and changes to approach will inevitably be required by TCs and thus reflected through updated standards over time. Misalignment of standards within ISO, and between ISO, CEN and other bodies has been identified by initiatives, industry and governments as a blocker to policy development and the formation of markets for low emission products. We must find compromise and alignment between approaches that enables GHG accounting and LCA standards to support these activities.	
ISO/TC 197	**<u>1. Does the scope of the proposed IWA overlap with the scope of your committee?</u>** At this time, we do not identify any clear overlap between the scope of the proposed IWA and the current scope of ISO/TC 197. Any potential overlap or related activities will be addressed through ISO/TC 197/SC 1. **<u>4. Share any general suggestions related to the quality, conciseness, and comprehensiveness of the proposal</u>**. We find the proposal to be generally clear and well-structured. At this stage, we have no additional comments SC 1 response 1. **<u>Does the scope of the proposed IWA overlap with the scope of your committee?</u>** Yes, we believe there is overlap between the scope of the proposed IWA and the current scope of ISO/TC 197/SC 1. The scope of ISO/TC 197/SC 1 references "standardization … including aspects of … sustainability." Related to	**<u>4. Share any general suggestions related to the quality, conciseness, and comprehensiveness of the proposal</u>**. 1. The figure in the proposal does not clearly indicate the SC 1 projects as still "in development." Please adjust the figure titles to reflect ISO/DIS 19870-1, ISO/AWI 19870-3 and ISO/WD 19870-4. 2. We suggest referencing ISO/WD 19870-2 in the Proposal's figure. 3. ISO should also involve ISO/TC 207/SC 5 for Life Cycle Analysis approach and ISO/TC 308 for Chain of custody as part of the list of committees in the proposal. 4. The IWA should indeed not only consider the carbon accounting itself but also the associated certification aspects and the digital product passports. 5. We would like to see a clarification on the term "heavy industry." 6. We have concerns with the schedule for the meetings as indicated on the proposal. It is however our understanding that once approved, the IWA process requires 90-days notification prior to any meeting taking place.	Thank you for your comments we will act on them. In regard to the meeting schedule, the main IWA meeting must take place at least 90 afters the announcement of the IWA. It is good practice to prepare a seed document to aid the main IWA meeting and the preparatory sessions will aid this process.	We will update the diagram and committee list as requested, and provide further detail on the definition of heavy industry to clarify that it includes production of hydrogen and its derivatives.

	sustainability, TC197/SC1 is developing standards on the carbon footprint of hydrogen and hydrogen derivatives, specifically SC 1 is currently developing a series of ISO standards (19870-1 through -4) that will address the *Methodology for Determining the Greenhouse Gas Emissions Associated with the Hydrogen Supply Chain* for emissions associated to the production of hydrogen, liquid hydrogen, ammonia and liquid organic hydrogen carriers. The figure in the proposal references 3 of these projects, but is missing liquid hydrogen (ISO/WD 19870-2). Although we see overlap, at this time, we are not opposed to the IWA process, as the IWA will not develop a standard as such but it should ensure consistency all along the value chain to the sustainable fuels. Hydrogen is only in piece of the puzzle. We need to ensure that the way the carbon emissions are accounted are coherent and avoid either doubling counting or avoided emissions. ISO/TC 197/SC 1 will offer the standards developed for hydrogen and hydrogen derivatives which seems in advance regarding other existing fuels. And these standards can be seen as innovative on at least two aspects: 1/ calling for the inclusion of CAPEX emissions 2/ introducing a consequential approach. The latter needs discussion and consensus among the upstream and downstream stakeholders.			