TOGETHER FOR SUSTAINABILITY

Supplier FAQ
PCF Data

Q: What is TfS?

A: Together for Sustainability (TfS) is a global initiative promoting sustainability across the chemical industry's supply chain. It has over 50 members, including some of the largest chemical groups.

Q: What are Scope 3 emissions?

A: Scope 3 greenhouse gas (GHG) emissions are indirect emissions associated with a company's value chain, including emissions from its suppliers. Scope 3 emissions typically represent the greatest proportion of a company's total GHG emissions. The chemical industry accounts for a very high level of global GHG emissions, approximately 77% of which are Scope 3.

Q: What is the difference between PCF and Scope 1, 2, and 3 emissions?

A: While "Scopes" follow the boundaries of a company, product carbon footprint follows the physical product. To calculate a PCF, a company may use similar data as they do to calculate Scope 1, 2, and 3, but the data is specific to the emissions associated with producing a particular product, including the raw materials and logistics that goes into the product, in a particular geography, rather than all the emissions related to the company as a whole.

Q: Why is it important to reduce Scope 3 emissions?

A: Scope 3 emissions typically represent the largest share of a company's total GHG emissions. In the chemical industry, Scope 3 emissions account for approximately 77% of total emissions. Many global companies in chemicals and other industrial sectors are reluctant to commit to tackling Scope 3 emissions because they are challenging to address. However, to keep global warming under 1.5 degrees Celsius, Scope 3 emissions cannot be ignored and, as an industry, we are taking action now.

The emissions of purchased goods and services (Scope 3, category 1) often compose a large share of Scope 3 emissions. With PCF data from their suppliers, companies can better calculate their Scope 3 impact.

Q: What is the TfS PCF Guideline?

A: The Together for Sustainability (TfS) Product Carbon Footprint (PCF) Guideline has been developed by TfS members and provides specific calculation instructions for emissions from "cradle-to-gate" for chemical materials. It harmonizes PCF calculation approaches across the industry and is applicable to the vast majority of chemical products.

Q: How is the PCF Guideline different from other standards?

A: Existing emissions guidelines, such as ISO and the GHG Protocol, do not meet the specific needs of the chemical industry. The PCF Guideline addresses the challenges of calculating Scope 3 emissions in this complex industry, providing the necessary level of detail and specificity.

However, while the Guideline is unique, it aligns with international standards.

TfS has partnered with global NGOs, corporate sustainability experts and chemical industry experts to develop the Guideline. Collaborations with organizations like the GHG Protocol, World Economic Forum (WEF), Science Based Targets initiative (SBTi), and the World Business Council for Sustainable Development (WBCSD) ensure alignment with existing generic guidelines. In particular, to maximize the influence of the Guideline as a cross-sector solution, TfS partners with **WBCSD's Carbon Transparency Pathfinder**. This collaboration engages stakeholders from various value chains, industries and initiatives with the shared goal of creating transparency in Scope 3 emissions.

Q: What kind of companies can use the PCF Guideline?

A: The PCF Guideline is specifically designed for companies using chemical materials, addressing the unique complexities of chemical production. The PCF calculation guidance is most applicable to chemical manufacturers. It also serves as a readily accessible "drop-in" solution that any company working with chemical suppliers can utilize. See the Chemical Value Chain Mapping for more details. Logistics and indirect materials are not covered by the guideline, apart from their role in the production of chemicals.

Q: What are TfS member companies asking from their suppliers regarding their greenhouse gas emissions?

A: Member companies are committed to collecting product carbon footprint (PCF) data on the products they purchase from suppliers. They are often seeking to understand suppliers' GHG reduction targets and emission reduction initiatives in relation to those products.

Q: Why is it important to collect product carbon footprint (PCF) data?

A: Understanding Product Carbon Footprints (PCF) and other greenhouse gas emissions data allows companies to more accurately measure and reduce their Scope 3 emissions.

Q: What is the difference between primary and secondary data?

A: Primary data is collected directly by an organization from its own activities and stakeholders, providing more specific and accurate information. Secondary data is pre-existing data obtained from external sources and provides more generalized information that can be used as a reference or supplement to understand industry benchmarks and contextualize an organization's emissions performance.

Q: How are supplier PCFs verified or checked?

A: PCFs may be verified by 1st party (internal expert), 2nd party (expert of the receiving company), or 3rd party resources (such as verification by a third party organization).

Q: How long does it take to calculate PCF?

A: The effort required to calculate the product carbon footprint (PCF) may vary depending on the complexity of your operations, availability of data, and level of detail required.

Q: How often does a PCF need to be updated?

A: The frequency of PCF updates may depend on factors such as changes in production processes, materials, or energy sources. Typically, PCFs should be updated at least every three years.

Q: What will you do with the results? / What will you do with the PCFs provided? / How will you use the collected data?

A: The data collected through the PCF process will be used to assess the carbon footprint of supply chains, identify emissions reduction opportunities, and develop collaborative strategies to decarbonize operations and products. Your input may inform sustainability goals, supplier engagement efforts, and overall climate strategy.

Data may also be used as an input to a company's PCF calculations and Scope 3 emissions reporting.

Q: Can I use the output for any international reporting framework?

A: Yes, the output from calculating the product carbon footprint (PCF) can be used for various international reporting frameworks, such as the Carbon Disclosure Project (CDP) and the Global Reporting Initiative (GRI). We encourage you to leverage this information for transparent and comprehensive reporting on your sustainability performance.

Q: What is the PCF Data Exchange solution?

A: Using Siemens SiGREEN technology, TfS piloted in 2023 up until the end of Q1 2024 the PCF Data Exchange solution. This solution supports the secure and trustworthy exchange of PCF data throughout the chemical supply chain, contributing to GHG reduction efforts.

Information exchange: The PCF Data Exchange solution allows chemical companies to request PCF information from their suppliers on purchased materials. This data, combined with a company's internal value creation processes, helps determine carbon footprints and enables targeted reduction measures.

Addressing challenges: The PCF Data Exchange solution tackles three major challenges in PCF calculation. It enables companies and suppliers to request and share product information at scale, ensures comparability of information for effective reduction efforts and provides a trusted environment for sharing PCF data.

Industry implementation: The PCF Data-Exchange solution aims to drive transparency in the chemical sector, facilitate large-scale PCF data exchange and contribute to GHG emissions reduction goals.

Q: What is decarbonization?

A: Decarbonisation is about reducing CO_2 emissions resulting from human activity, with eventual goal of eliminating them. The 2015 Paris Agreement set an ambition to limit global warming to well below 2°C above pre-industrial levels and pursue efforts to limit it to 1.5°C - in part by pursuing net carbon neutrality by 2050. The substantial reduction of global greenhouse gas emissions (including CO_2) will limit the increase of global temperature. (Source: **What is decarbonisation? | Future of Energy | Deloitte Netherlands**)

Q: What is Net-Zero? And what is the difference with Carbon Neutrality?

A:
- Net-zero covers all GHG emissions and aims at achieving a balance between man-made emissions and removals. Following the SBTi, one needs to reduce at least 90% of your GHG emissions latest by 2050. Then for the remaining 10% one could make use of certifications.
- Carbon neutral: it is different than Net-Zero.
  (1) It may not necessarily cover all non-CO_2 GHGs.
  (2) Companies can offset CO_2 emissions without necessarily reducing them.

The Science Based Targets initiative (SBTi) doesn't endorse carbon neutrality claims. Data source: **Net-Zero Jargon Buster - a guide to common terms - Science Based Targets**

Q: What is SBTi?

A: The Science Based Targets initiative (SBTi) is a collaboration between the CDP, the United Nations Global Compact, World Resources Institute and the World Wide Fund for Nature.

The SBTi:

- Defines and promotes best practice in emissions reductions and net-zero targets in line with climate science.
- Provides technical assistance and expert resources to companies who set science-based targets in line with the latest climate science.
- Brings together a team of experts to provide companies with independent assessment and validation of targets.
- The SBTi was the lead partner of the Business Ambition for 1.5°C campaign - an urgent call to action from a global coalition of UN agencies, business and industry leaders, which mobilized companies to set net-zero science-based targets in line with a 1.5°C future.

More terms and definitions and included in the table below.

Abbreviation	Term	Definition
PCF	**Product Carbon Footprint**	The Product Carbon Footprint is the most established method for determining the climate impact of a product, considering the total greenhouse gas (GHG) emissions caused to produce a product, expressed as carbon dioxide equivalent. The PCF can be assessed from cradle-to-gate (partial PCF) or from cradle-to-grave (total PCF).
LCA	**Life Cycle Assessment**	The compilation and evaluation of the inputs, outputs, and the potential environmental impacts of a product system throughout its life cycle [ISO 1440: 2006].
	Cradle-to-gate	An assessment that includes part of the product's life cycle, including material acquisition through the production of the studied product and excluding the use or end-of-life stages.
GHG protocol	**Greenhouse Gas Protocol Standard**	International Standard on how to calculate Greenhouse Gases.
GHG	**Greenhouse Gases**	Greenhouse gases constitute a group of gases contributing to global warming and climate change. The Kyoto Protocol, an environmental agreement adopted by many of the parties to the United Nations Framework Convention on Climate Change (UNFCCC) in 1997 to curb global warming, nowadays covers seven greenhouse gases: Greenhouse gases constitute a group of gases contributing to global warming and climate change. The Kyoto Protocol, an environmental agreement adopted by many of the parties to the United Nations Framework Convention on Climate Change (UNFCCC) in 1997 to curb global warming, nowadays covers seven greenhouse gases:

Abbreviation	Term	Definition
GHG (cont.)	**Greenhouse Gases**	The non-fluorinated gases: • Carbon dioxide (CO_2) • Methane (CH_4) • Nitrous oxide (N_2O) The fluorinated gases: • Hydrofluorocarbons (HFCs) • Perfluorocarbons (PFCs) • Sulphur hexafluoride (SF_6) • Nitrogen trifluoride (NF_3) Converting them to carbon dioxide (or CO_2) equivalents makes it possible to compare them and to determine their individual and total contributions to global warming.
CO_2e	**Carbon Dioxide Equivalent**	Carbon dioxide equivalent, or CO_2e is a metric measure representing all greenhouse gases by converting them to the equivalent amount of CO_2.
GWP	**Global-warming Potential**	Global-warming potential, is a term used to describe the relative potency, molecule for molecule, of a greenhouse gas, taking account of how long it remains active in the atmosphere.
	Primary data	Sometimes also called activity data. Data that concern processes inside the operational control of the company or data from specific processes in the product life cycle. A partial PCF is considered primary data if the measure of the activity data and the measure of the emission factor are based on data where the data generators have a direct access to via direct measurements or assessments where they have a direct control. "Data pertaining to a specific product or activity within a company's value chain. Such data may take the form of activity data, emissions or emission factors. Primary data is site-specific, company-specific (if there are multiple sites for the same product) or supply chain–specific. Primary data may be obtained through meter readings, purchase records, utility bills, engineering models, direct monitoring, material or product balances, stoichiometry or other methods for obtaining data from specific processes in the value chain of the company" [Path 2021:41]
	Secondary data	See also background data. Data that concern processes outside the operational control of the company or process data that are not from specific processes in the product life cycle. "Data that is not from specific activities within a company's value chain but from databases, based on averages, scientific reports or other sources." [Path 2021:41]
ISO 14067: 2018	**ISO standard on Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification**	ISO 14067: 2018 specifies principles, requirements and guidelines for the quantification and reporting of the carbon footprint of a product (CFP), in a manner consistent with International Standards on life cycle assessment (LCA) [ISO 14040 [ISO 14040: 2006] and ISO 14044].
	Verification	Confirmation, through the provision of objective evidence, that specified requirements have been fulfilled. [ISO 9000: 2005; ISO 14025:2006]