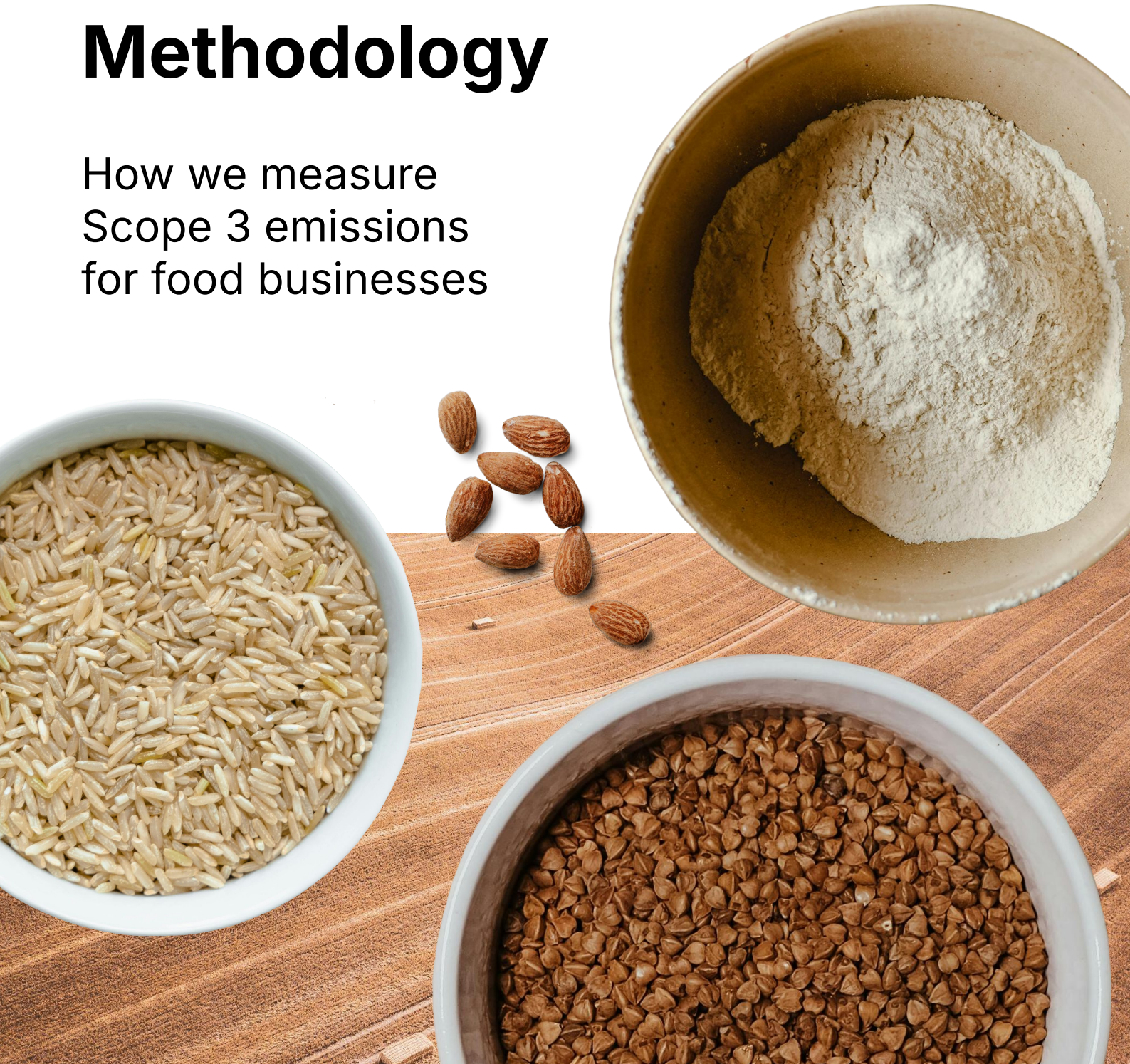
Foodsteps

White Paper

Foodsteps Scope 3 Assessment Methodology

How we measure Scope 3 emissions for food businesses



Introduction

Scope 3 emissions are indirect greenhouse gas emissions that occur throughout a company's value chain but are not directly produced by the company itself. For food businesses, Scope 3 emissions account for up to 95% of their total emissions[1].

These emissions – coming from Category 1 'Purchased Goods & Services' – are the most significant category for any food & drink business and should be the main priority when measuring and reporting on Scope 3 emissions, as they represent the lion's share of the company's entire footprint.

Compliance and Reporting: Measuring Scope 3 emissions is becoming a critical part of aligning and complying with international standards and regulations. Groups like the Science Based Targets initiative (SBTi), the Task Force on Climate-related Financial Disclosures (TCFD), and the Carbon Disclosure Project (CDP) require businesses to report their Scope 3 emissions as part of broader environmental targets in order to comply with their standards.

Additionally there are a host of global regulations like the Corporate Sustainability Reporting Directive (CSRD), the Climate Corporate Data Accountability Act (California SB253) and the International Financial Reporting Standards (IFRS S2) that require mandatory disclosure of sustainability data, including Scope 3 emissions.

Delivering Sustainability Strategies: Food businesses across the globe have implemented or are in the process of implementing sustainability or Net Zero transition plans. As such, they must track and mitigate their emissions in order to achieve their goals of reducing overall environmental impact. Scope 3 measurements provide a clear picture of which suppliers and products are contributing the most to their emissions. As a result, businesses can make more informed decisions regarding sustainable sourcing and sustainability strategies, and track their progress over time.

> Foodsteps analysed 1.7 million rows of food and beverage data, calculating our carbon footprint for 2023, inclusive of Compass's entire supply chain. The insights from Foodsteps contributed to the development of Compass's Transition Plan (launched in February 2024), which is aligned to the goals of the UK government's Transition Plan Taskforce.
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> **Stephanie Pereira**
> Climate & Environment Impact Analyst at Compass Group UK&I

1. WRAP, "Scope 3 GHG Measurement & Reporting Protocols"

Foodsteps Scope 3 Assessments
Methodology

Foodsteps has developed a unique methodology to measure and assess Scope 3 emissions, specifically tailored for the food industry. Here's how it works:

Foodsteps follows the Greenhouse Gas Protocol to align our Scope 3 Assessments with global standards. However, what sets Foodsteps apart is its depth of focus on the food supply chain and our volume-based, SKU-level approach. Our methodology allows businesses to evaluate not just broad categories of emissions but specific products, down to individual ingredients and their attributes. This detailed approach helps businesses accurately measure the impact of their procurement choices and track decarbonisation progress across their supply chain.

1. Best-in-class Data & Models Designed Specifically For The Food Industry

Foodsteps has an industry-leading database of harmonised and comparable emissions factors for foods. This allows us to match all of a food business' SKUs to extremely specific emissions factors; for example, we will not match 1500 SKUs to a generic 'meat'. Instead we will match each SKU to the most specific emissions factor possible, like 'bone-in chicken' or 'boneless chicken'.

We have spent and continue to spend a huge amount of time gathering data, modelling the impact of food items and food system processes, to ensure that all of this is packaged in accessible ways. We're also engaged with research that is at the cutting-edge of developing societies' understanding of what the impacts of our food system are, and how best we can reduce them.

Emissions factors are calculated in three ways, in order of priority:

- directly using data from research studies on the food item;
- by combining multiple studies and life cycle stages using our own proprietary modelling for complex food items containing more than one ingredient;
- indirectly using proxy food items where a direct match cannot be found.

The models we have built enable us to assess the impact of food across the life cycle, so we can measure the impact of all upstream and downstream Scope 3 categories, from procurement to end-of-life. Downstream activities in particular have low data availability and high variability. In order to achieve a downstream emissions assessment that is tailored to our customer's business, Foodsteps has created our own unique models for the environmental impacts of post-retail stages. These include the end-mile transport of food items (from the point-of-sale to consumption), the pre-preparation storage, cooking and post-preparation storage of food items, and the end-of-life disposal of any food that is wasted. For each location, we use nationally specific impact factors for energy consumption, as well as nationally specific data on consumer behaviour.

Foodsteps Scope 3 Assessments
Methodology continued

2.
Data Customised To Each Company's Supply Chain

We are able to incorporate primary data from a customer's supply chain into the assessment of the procured products in order to make the Scope 3 assessment as specific as possible. For the most material items in a customer's procurement, we can either harmonise and incorporate pre-existing life cycle assessments (LCAs) that a supplier has already conducted, or we can conduct these LCAs ourselves. This is incredibly important, because without this specific data from suppliers, it will not be possible to track the impact of the decarbonisation efforts a customer and its suppliers make, and have that reflected in the subsequent Scope 3 assessments. Generic, secondary data will only be able to reflect emissions changes due to changes in what the business procures, not changes in the production of those procured items as you work with your suppliers to reduce impacts.

3.
Volume-Based Approach For Utmost Accuracy

We conduct volume-based assessments of all SKUs. This is much more accurate than spend-based assessments. Spend-based emissions data often relies on broad industry averages and doesn't account for inflation, discounts, or other price fluctuations, making the measurements inaccurate and any conclusions drawn uncertain. If masses are missing from a business' procurement data, we can uniquely estimate the correct masses of the SKUs using our proprietary mass estimation model. What's more, we can flexibly blend in any primary data you have on your operations and supply chain with our secondary data. For example, we can ingest data from your supplying farms, which is crucial for accuracy and specificity as the majority of food impacts are happening on the farm. Last but not least, our emissions factors can be broken down as granularly as needed, right down to the different individual greenhouse gases from methane to carbon dioxide, which is essential for SBTi FLAG reporting.

4.
Cutting-Edge Machine Learning Streamlines The Process

Conducting Scope 3 assessments in-house can be a daunting task that requires significant time, expertise, and data management skills. Foodsteps simplifies this process, offering a comprehensive, ready-made solution. By partnering with Foodsteps, businesses avoid the complexities of gathering data, modelling emissions, and ensuring regulatory compliance. Foodsteps uses advanced technology, including custom machine learning tools, to analyse and categorise massive amounts of data. This system ensures fast, reliable assessments, even if your data is incomplete or disorganised. These tools also help track progress year-over-year, allowing businesses to recalibrate their emissions calculations and stay on top of decarbonization efforts. At the end of the day, our tools save you time and effort and money. We'll guide you away from large messy spreadsheets towards streamlined and simple emissions reporting.

Case Study
Compass Group UK&I

Challenge

Compass Group UK&I is the largest corporate catering group in the world, serving over 141 million meals annually. Compass aims to achieve Net Zero by 2030, and has positioned itself as a leader in sustainable practices within the food service industry. As a signatory of the Science-Based Targets initiative (SBTi), Compass is committed to meeting stringent FLAG reporting standards, which requires accurate measurements of its Scope 3 emissions from across its complex supply chain. To comply with SBTi and other standards, Compass needed to measure their Scope 3 emissions assessments for FY23 and FY24.

Solution

In 2023 Foodsteps conducted a comprehensive carbon impact assessment of Compass Group's supply chain, analysing 1.7 million rows of food and beverage data over 12 weeks.

As the largest assessment in the industry, it provided valuable insights across all six Compass UK&I sectors, enabling their Transition Plan and SBTi reporting. Foodsteps again analysed 2.2 million rows of food and beverage data for 2024 reporting.

Using Life Cycle Assessments with primary data from Compass' suppliers, Foodsteps further enhanced the accuracy of Compass' Scope 3 measurements.

Additionally, Compass took action. Equipped with data-driven insights, Compass developed targeted supply chain interventions aligned to their Net Zero goals. Empowered by this information, 4,000 chefs began reformulating recipes to emphasise local, seasonal, and plant-based ingredients with measurable results. Successful initiatives include developing a new low-impact Mushroom Wellington with a carbon footprint under 1kg CO_2e and a dairy-free Panna Cotta with 31% lower impact. These efforts are central to Compass's sustainable culinary strategy, advancing their Net Zero roadmap.

> Foodsteps analysed **1.7 million rows of food and beverage data** with Compass. The insights from Foodsteps contributed to the development of Compass' Transition Plan (launched in February 2024), which is aligned to the goals of the UK government's Transition Plan Taskforce. Based on this successful experience, we partnered with Foodsteps once again to measure our FY24 food and beverage data. **By working with Foodsteps on Scope 3 Assessments and recipe measurement, Compass has made evidence-based ingredient choices and utilised menu modelling to inform decisions, empowering stakeholders to drive change within their sectors.**
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> **Stephanie Pereira**
> Climate & Environment Impact Analyst at Compass Group UK&I

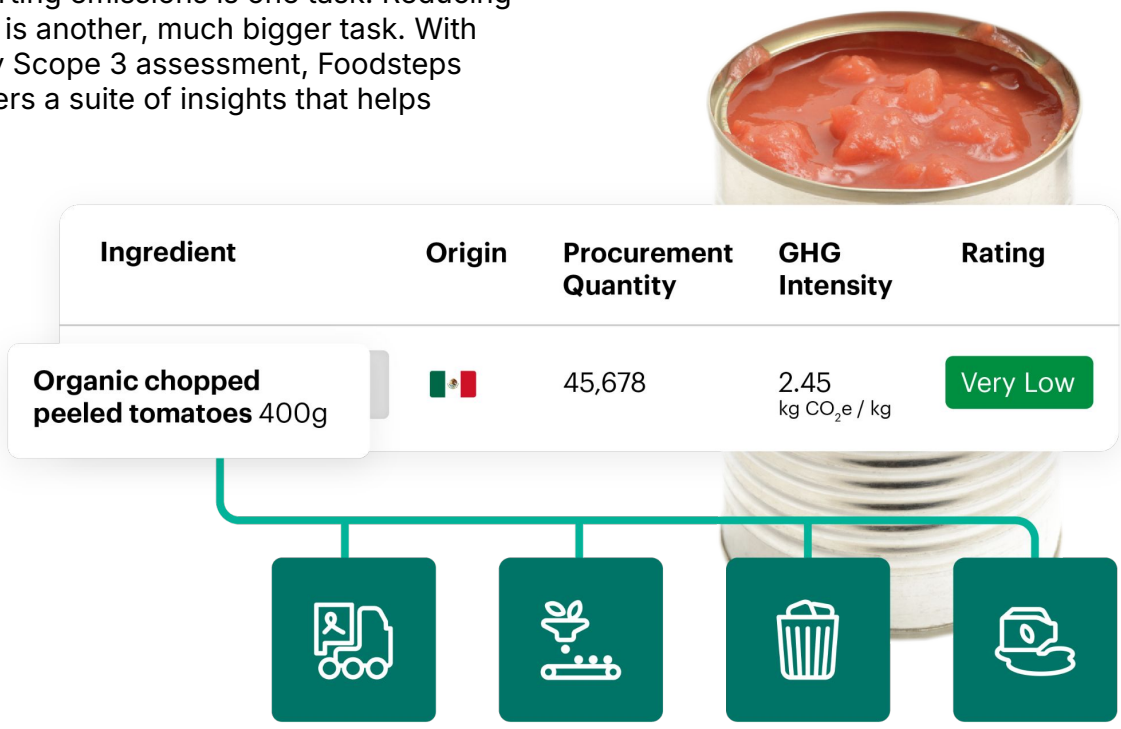
Conclusion

Unlike other providers that might rely on generic emissions data, Foodsteps integrates specific, SKU-level data from your suppliers, allowing for a more precise measurement of your supply chain impact. This is crucial for tracking the real-world effects of any decarbonisation measures you or your suppliers take.

Reporting emissions is one task. Reducing them is another, much bigger task. With every Scope 3 assessment, Foodsteps delivers a suite of insights that helps businesses cut through the noise to understand what is driving their emissions.

Our team of experts helps companies focus on reducing their carbon footprint by providing tailored decarbonisation recommendations. After all, assessing individual products and reducing their impact is one of the most effective ways to quickly reduce one's overall Scope 3 impact. This hands-on approach ensures that businesses can make meaningful progress toward their sustainability or Net Zero goals.

Foodsteps offers food businesses a faster, more accurate, and comprehensive way to measure and reduce their Scope 3 emissions, freeing up valuable resources and ensuring compliance with global standards and regulations.



Book a call with a Foodsteps Expert

To learn more about how we can support your Scope 3 measurements and reporting

About Foodsteps

Foodsteps is on a mission to empower the food industry to accelerate its journey to Net Zero. Food systems account for nearly a third of global greenhouse gas emissions and are the leading driver of biodiversity loss. In order to avoid the catastrophic consequences from both the climate and ecological crises, we must bring positive change to our food systems—fast.

Our specialised food sustainability platform provides instant access to industry-leading data and insights that food services companies and food manufacturers can trust to accurately measure, reduce and report their environmental impact. With Foodsteps, businesses reduce the costs and risks of their net zero transition, and improve sales as a result.

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