

Scope 3 Accounting Guide



Driving Best Practice Scope 3 Accounting in the Home Improvement Retail Sector



Welcome to the first edition of the EDRA/GHIN Scope 3 Accounting Guide, developed by Ricardo PLC and the EDRA/GHIN Scope 3 Taskforce. This document is a valuable resource to help retailers start out and make steady progress on their Scope 3 reporting journey.

Key Highlights

- Applicable Scope 3 Categories
- Embodied emissions from products purchased for resale (Scope 3 Category 1)
- In-life emissions from sold energy consuming products (Scope 3 Category 11)
- Scope 3 target setting
- Tools to help you with Scope 3 accounting and data collection
- For the full contents list see [here](#)

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Chapter 1

Introduction to Carbon Accounting

- **WHO ARE EDRA/GHIN AND WHY A SCOPE 3 GUIDE?**
- **WHAT ARE GREENHOUSE GAS EMISSIONS?**
- **HOW DOES THIS IMPACT BUSINESSES?**
- **WHERE CAN A BUSINESS BEGIN?**

1.1 WHO ARE EDRA/GHIN AND WHY A SCOPE 3 GUIDE?

EDRA/GHIN is the trade association representing the interests of the global home improvement retail sector. Together, the members employ over 1.4 million people and generate revenues in excess of €360 billion; having significant influence over wide sections of the manufacturing sector and the shopping habits of people across the world.

With rapidly growing interest in and relevance of measuring and reducing corporate greenhouse gas (GHG) emissions, the sector formed the Scope 3 Taskforce in 2023. It was soon recognised that while many retailers are already well progressed on their Scope 3 “journey”, many are still in the early stages or considering their next steps to improvement. This Scope 3 Accounting guide aims to help these companies.

1.2 WHAT ARE GREENHOUSE GAS EMISSIONS?

GHG emissions refer to the emissions from the seven main gases that accumulate in the atmosphere and trap heat. Human activities since industrialisation have led to increasing levels of these gases, resulting in an increase in global surface temperature and subsequent impacts on weather patterns, commonly referred to as climate change.

1.3 HOW DOES THIS IMPACT BUSINESSES?

There have been several agreements and initiatives which provide a legal and policy framework for countries and businesses to mitigate climate change.

The most important is the Paris Agreement of 2015, which has 194 signatory states to date. This is a legally binding international treaty that aims to limit global warming to well below 2°C above pre-industrial levels, with efforts to limit temperature increases even further to 1.5°C as recommended by the landmark Intergovernmental Panel on Climate Change (IPCC) report. The ultimate objective is for global society to achieve the status of Net Zero greenhouse gas emissions, meaning that emissions are drastically reduced, and then any residual emissions are subsequently removed from the atmosphere.

The European Union (EU), United Kingdom (UK), United States (US), and many other countries have adopted numerous national and regional policies to push or incentivise businesses to decrease emissions. The Science Based Targets Initiative (SBTi), an international non-Governmental Organisation (NGO) was formed to guide businesses to adopt sufficiently ambitious emissions reduction targets to support this goal.

In 2021, the SBTi issued the Corporate Net Zero Standard¹, the first globally applicable guidance on Net Zero definitions and targets for businesses. This standard requires 90% of Scope 1, 2, and 3 emissions to be decarbonised and the remaining emissions to be neutralised by no later than 2050. *Further detail on Science Based Targets provided in Chapter 8.* There are also the ISO Net Zero Guidelines, which are the foundations of a future International Standard for Net Zero.

¹ [SBTi Corporate Net-Zero-Standard](#)



These global initiatives have significant impact for businesses, as many are now subject to regulations that require the publication of corporate emissions and investment in measures to reduce them.

Investors are also increasingly considering climate related risks and opportunities when making investment decisions. The Corporate Sustainability Reporting Directive (CSRD) introduced mandatory sustainability reporting for large companies in the EU. There is also ever increasing pressure from shareholders and other stakeholders to disclose GHG emissions, evaluate climate-related risks, set targets and reduce emissions at a steady rate towards Net Zero.



1.4 WHERE CAN A BUSINESS BEGIN?

To understand the impact that your business has on global GHG emissions and climate change, a full GHG inventory must be measured. This is sometimes referred to as a corporate carbon footprint. To calculate this, data needs to be collected on all activities undertaken by a business that cause GHG emissions, within defined scopes:

- **Scope 1:** direct emissions resulting from activities controlled by the reporting company.
- **Scope 2:** indirect emissions from purchased energy, heat or steam that is consumed (but not produced) by the reporting company.
- **Scope 3:** indirect emissions, upstream and downstream in the value chain, that occur outside the company's own operations.

Understanding all the scopes is important to identify emission hotspots, set reduction targets, develop strategies to decarbonise and track progress.

This guide focuses on helping account for your scope 3 emissions, which are now an essential requirement of the schemes discussed above, as well as such programmes as CDP and the Global Reporting Initiative (GRI). Scope 3 is more challenging to measure and manage than other scopes due to the complexity of value chains, data availability and the fact that this emission source lies outside a company's direct control. However, this scope also tends to be the largest source of emissions commonly accounting for well over 90% of emissions in the home improvement retail sector.

Chapter 2

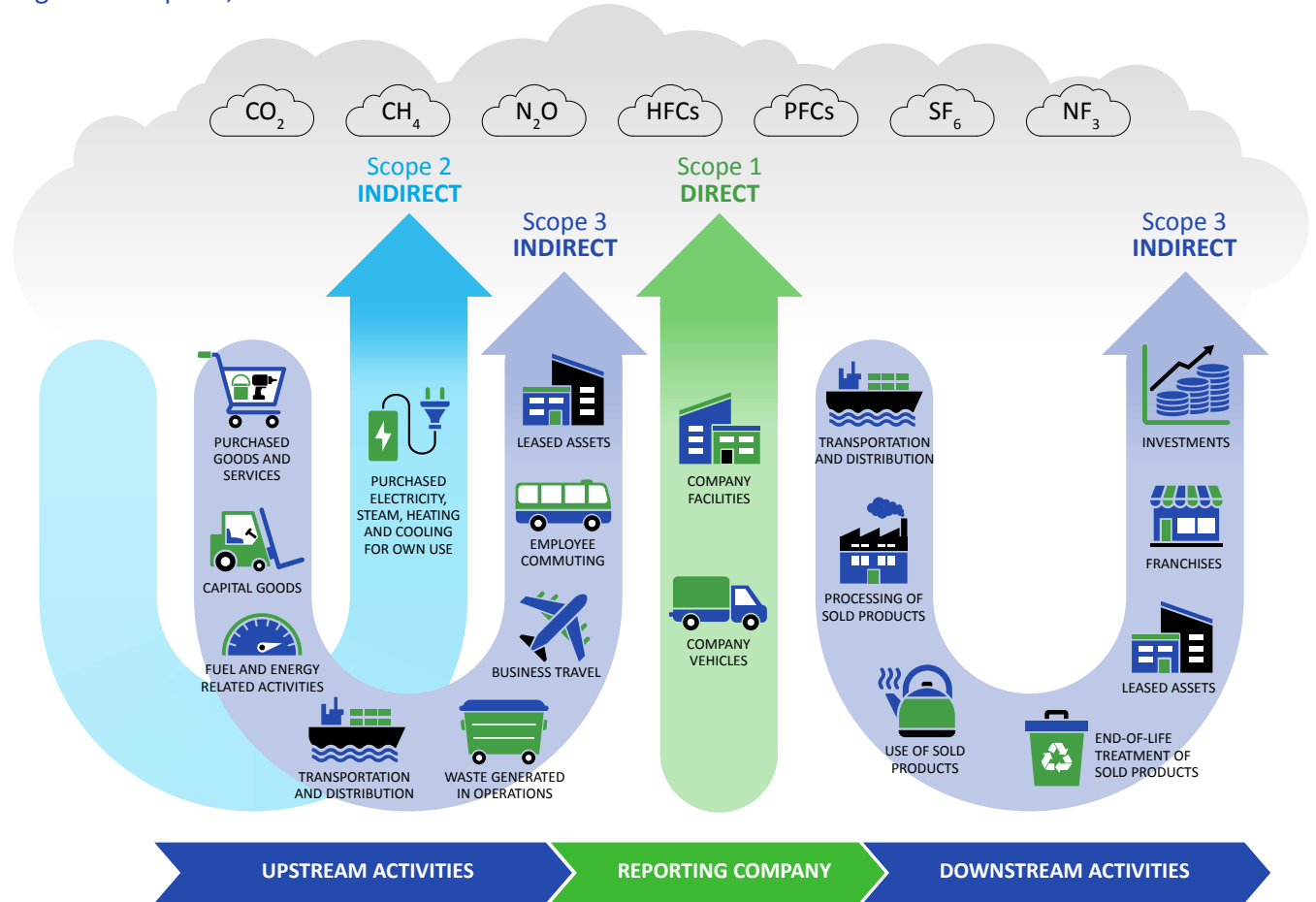
Understanding Carbon Emissions

- GREENHOUSE GAS INVENTORY
- APPLICABLE SCOPE 3 CATEGORIES
- PRIORITISING SCOPE 3 CATEGORIES
- ORGANISATIONAL BOUNDARIES

2.1 GREENHOUSE GAS INVENTORY





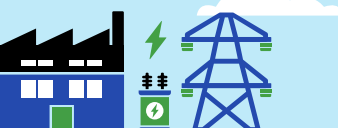

A greenhouse gas inventory quantifies the total emissions of an organisation, including both direct and indirect sources within its value chain, commonly known as a carbon footprint. The GHG Protocol categorises emissions into three scopes:

Figure 1: Scopes 1, 2 and 3 Emission Sources²



² Source: Ricardo image based on GHG Protocol.

The applicable scope of an emissions source is determined by its relation to the reporting company and sometimes the type of emissions source or fuel. Some non-exhaustive examples:

		
<p>COMBUSTION ENGINE Operated by employees of and owned or leased by the reporting company: Scope 1</p>	<p>ELECTRIC VEHICLE Operated by the reporting company and charged at their office: Scope 2</p>	<p>VEHICLE OWNED AND/OR OPERATED BY A THIRD PARTY e.g. 3rd party logistics, taxi, employee car: Scope 3</p>
		
<p>HEATING OR INDUSTRIAL FUEL Combusted at site operated by the reporting company: Scope 1</p>	<p>ELECTRICITY USAGE At a site operated by the reporting company: Scope 2</p>	<p>ANY EMISSIONS associated with a site operated by a supplier or customer: Scope 3</p>

2.2 APPLICABLE SCOPE 3 CATEGORIES

There are 15 categories that all need to be quantified to form a complete Scope 3 inventory.

There are multiple ways to quantify them, with increasing degrees of complexity and accuracy. The brief guidance in Table 1 on the following pages provides suggestions for your initial Scope 3 inventory, which may be sufficient for longer term reporting as well for smaller emissions sources. For all Upstream categories (1 to 8), supplier or product-specific emissions data is the preferable, most accurate source of data, but there are alternatives as set out in Table 1.

More detail on key Categories 1 and 11 are provided in chapters 5 and 6.



For all Upstream categories, supplier or product-specific emissions data is the preferable, most accurate source of data, but there are alternatives.

More examples and specific rules around scope inclusion are provided by the GHG Protocol Corporate Accounting and Reporting Standard. *More descriptions of the different Scope 3 categories provided in Table 1 on the following page.*

Table 1: Summary of Scope 3 emission sources

The categories are shaded to show the most relevant emissions sources to the home improvement sector:

Blue – highly significant
 Light blue – significant
 Green – rarely applicable

Category	Name	Typical emission sources for retailers	Suggested initial data/methodology	Data from:
1	Purchased Goods and Services	Goods for resale: See chapter 5 . Business overheads: accountancy, consultancy, insurance, training, property and vehicle maintenance Taxes and employee wages are not reportable	Spend-based. Product carbon footprints if available.	Accounts, invoices
2	Capital Goods	Capital investment in assets such as property, IT and vehicles	Spend-based. Product carbon footprints if available.	Accounts, invoices.
3	Fuel and Energy Related Activities	Transmission and Distribution Losses and Well to Tank (WTT) from consumed electricity and fuels.	Quantity of fuel consumed (m ³ , kWh, litres), mileage.	Scope 1 and 2 input consumption data.
4	Upstream Transportation and Distribution	All third-party transport and storage where the reporting company pays: <ul style="list-style-type: none"> • Collection from suppliers and internal distribution • Outsourced warehousing • Deliveries to customers. 	Quantity of fuel consumed (litres, kWh), mileage, or can use Spend-based if required.	Invoices, mileage, fuel consumption reports.
5	Waste Generated in Operations	Solid and liquid waste disposal from stores, warehouses, offices and any owned manufacturing.	Calculate from quantity of waste generated (m ³ , tonnes or litres for sewage) and conversion factor for treatment method. Or can use spend-based if required.	Internal waste records, waste handling notes, invoices.
6	Business Travel	Staff travel for business purposes in non-company owned vehicles: private cars, rail, air, taxi, boat. Can include hotels (optional).	Quantity of fuel consumed (litres), mileage, spend or travel agency emissions reports.	Invoices, mileage, expenses data, travel agent reports.

Category	Name	Typical emission sources for retailers	Suggested initial data/methodology	Data from:
7	Employee Commuting	Regular staff travel to work. Can include home working (optional).	Can estimate from staff numbers, work patterns and national statistics. Or calculated from employee survey on commuting distances and habits.	Staff surveys, Human Resources address and contractual data, or national commuting statistics e.g. UK Department for Transport.
8	Upstream Leased Assets	Energy usage in short term leased buildings e.g., in shopping malls, airports or serviced offices.	Scope 1 and 2 emission data, or energy usage data (fuels , electricity).	Landlord or use local energy benchmarks.
9	Downstream Transportation and Distribution	Customer travel to stores. Customer-arranged and paid-for collections and storage.	Quantity of fuel consumed if available, otherwise estimate from customer numbers and travel distances.	Customer surveys, dispatch notes, fuel usage reports. Note: this is only transportation not paid for by your company.
10	Processing of Sold Products	Industrial processing of sold materials e.g. timber, chemicals, aggregate. (Rarely applicable to retailers).	Scope 1 and 2 emissions of downstream companies allocated to your sold product.	Customer emissions data, sustainability reports, or engineering calculations (estimates).
11	Use of Sold Products	The energy consumption during the operational lifetime of sold appliances. Direct emissions from sold fuels.	Estimate the energy consumption and emissions per product. <i>See chapter 6 for full details.</i>	Product specification (i.e. energy efficiency or rating, expected lifetime, energy consumption).
12	End of Life Treatment of Sold Products	Disposal of sold goods, by customers.	Quantity generated from disposal of products or packaging (m ³ , tonnes or litres). Then, as per Cat. 5.	Sales data by product, invoices, or expense data.
13	Downstream Leased Assets	Commercial property. Vehicle and plant hire.	Scope 1 and 2 emission data, or tenant energy usage data (fuels or electricity).	Energy invoices. Vehicle mileage.
14	Franchises	Franchised retail outlets.	Scope 1 and 2 emission data, or energy usage data (fuels or electricity) of the franchise.	Franchise’s sustainability report or invoices.
15	Investment	Joint Ventures or investments (equities, assets) in third parties outside the reporting company’s operations. Investments in funds such as pensions (Optional).	Scope 1 and 2 emission data. Fund carbon intensity metrics.	Investees’ own emissions data. Published fund carbon intensity metrics.

2.3 PRIORITISING SCOPE 3 CATEGORIES

Effective management of Scope 3 depends on focussing on the most significant emissions sources. You can use a priority matrix to determine which Scope 3 categories you want to focus on for more accurate accounting and subsequent emissions reductions.

- **Importance:** Are the emissions a material proportion of your inventory? What is the volume of emissions?
- **Urgency:** Are you responsible for decarbonisation or will it be solved externally? Is there stakeholder perception of high importance or is there regulatory pressure?

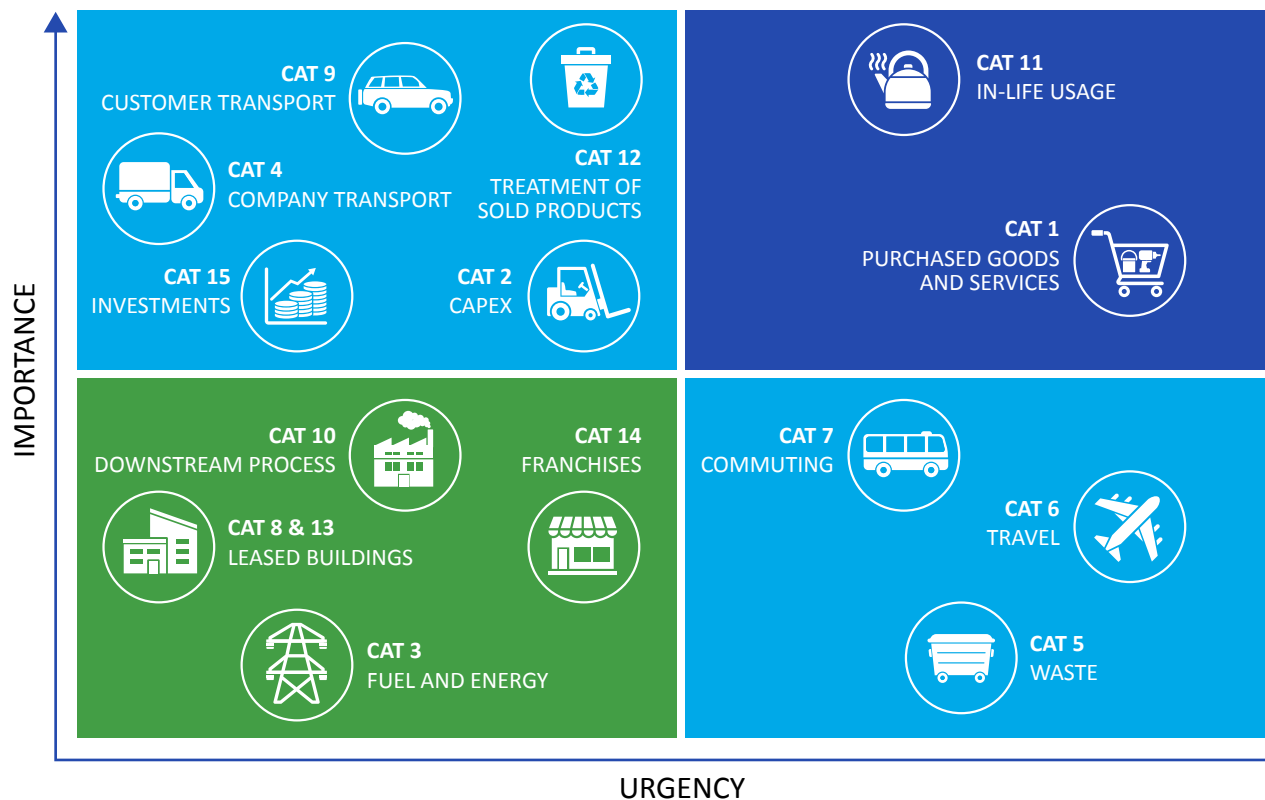
For the categories that fall under high importance and urgency, focus on attaining high-quality data and ensure a robust methodology.

2.4 ORGANISATIONAL BOUNDARIES

You must determine which emissions are your responsibility. When defining organisational boundaries there are two approaches: financial control (sometimes referred to as equity), and operational control. With financial control you measure your emissions according to the share of equity in the entity. Alternatively, and more commonly, you can account for emission based on whether you have operational control over an entity.

This guide is based on the operational control approach as it is the one most applicable to the practicalities of retail operations. However, if you would like to consider financial control, for example if you have substantial investments in separate businesses, further guidance is available in the GHG Protocol Corporate Guidance⁴.

Figure 2: Priority matrix for Scope 3 categories³



- **High Priority:** Work to measure accurately, set targets, invest in decarbonisation
- **Moderate Priority:** Monitor, consider targets, decarbonise in line with market
- **Low Priority:** Re-screen occasionally

- Importance:**
- Scale of emissions and projected growth
 - Inclusion in Science Based Target 67%+ boundary
- Urgency:**
- Responsibility: Will it be solved externally?
 - Can you really influence it?
 - Stakeholder perception
 - Regulatory pressure

³ Source: Ricardo

⁴ Corporate Standard | GHG Protocol

Chapter 3

Scope 3 Accounting in the Home Improvement Retail Sector

- HOW DO EDRA/GHIN MEMBERS ACCOUNT FOR SCOPE 3?
- TYPICAL SCOPE 3 INVENTORIES IN THE SECTOR
- KEY TAKEAWAYS

3.1 HOW DO EDRA/GHIN MEMBERS ACCOUNT FOR SCOPE 3?

A survey of the EDRA/GHIN membership on their approach to GHG accounting provided some interesting insights into the home improvement retail sector.

It identified four definable levels of progress in accounting, targeting and managing Scope 3. In practice, a company will often be at different levels between the 15 Scope 3 categories and should use the prioritisation process above to guide how much resource and focus to devote to each category.

Figure 3: Scope 3 accounting progress levels

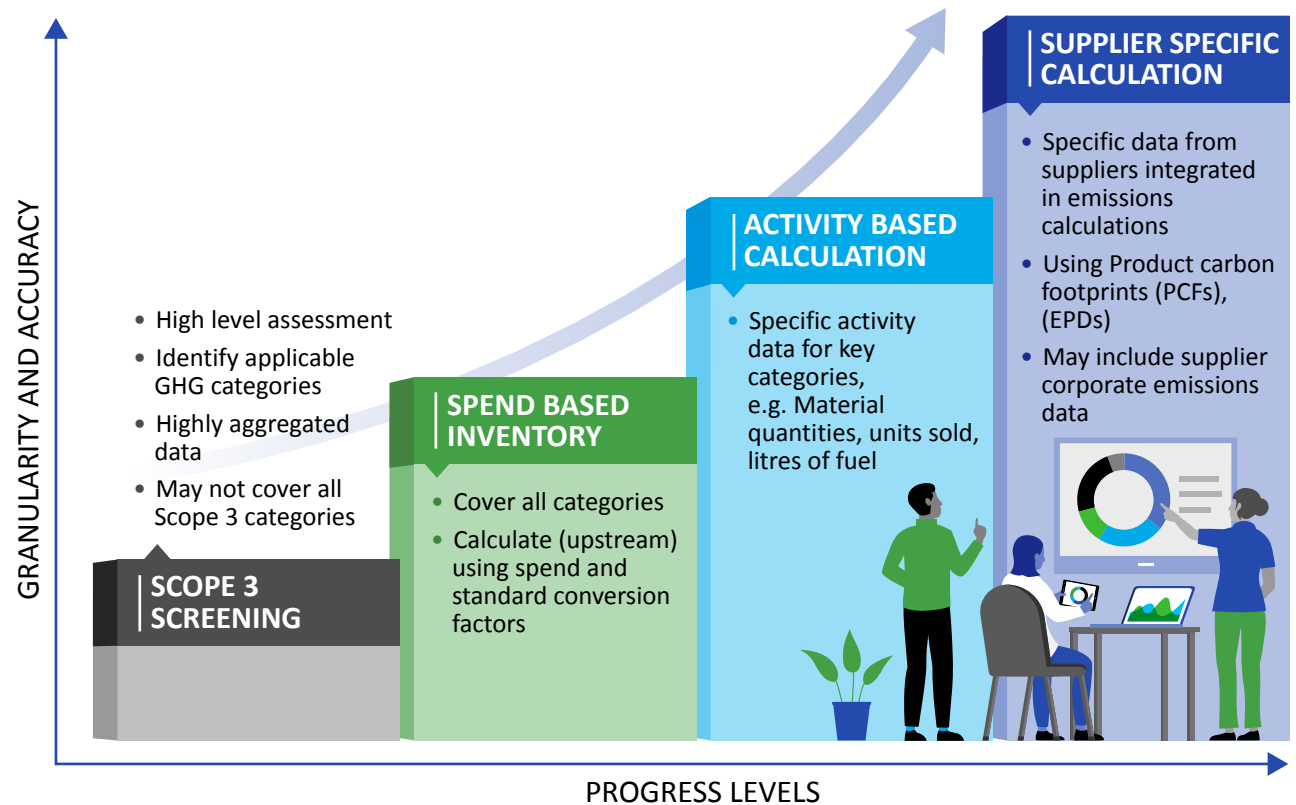
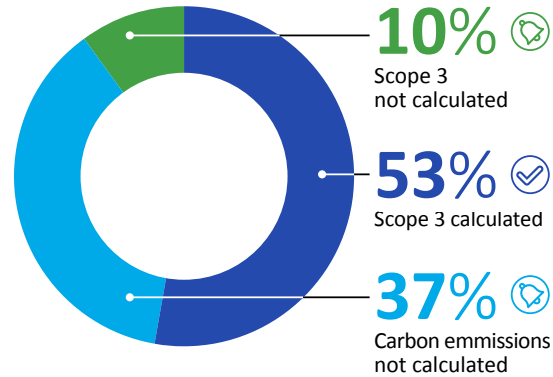


Figure 4: Scope 3 emissions calculation levels across EDRA/GHIN members

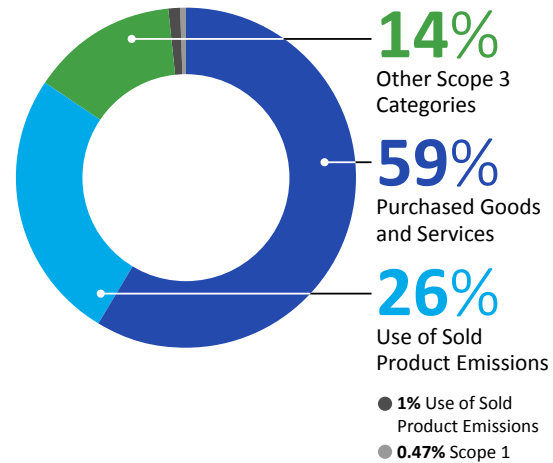


Just under half of EDRA/GHIN members have not yet calculated some or all of their Scope 3 emissions.

This guide will aid EDRA/GHIN members to both get started, and to reach a higher level of progress in Scope 3 accounting.



Figure 5: Greenhouse gas emission inventory across EDRA/GHIN members



Category 1: Purchased Goods and Services emissions represent upstream emissions from the production and provision of goods and services purchased by a company. This includes mining or farming of raw materials, industrial processing and assembly, and transportation and storage between these various stages.

Category 11: End of Life emissions represents the emissions from the use of products sold by a company. This includes products that consume energy during use and combustion of fossil-fuel-based products.



3.2 TYPICAL SCOPE 3 INVENTORIES IN THE SECTOR

Retailers’ GHG emissions are normally dominated by Scope 3 sources due to their complex supply chains, large customer bases and relatively small Scope 1 and 2 emissions. This is true for EDRA/GHIN’s members, with 98% of total emissions from Scope 3.

There is, however, plenty of variation between companies, depending on their location and product offerings. While Category 1 is most commonly the largest, retailers that sell the largest quantities of heating/cooling equipment, home appliances and power tools report Category 11 as their most significant emissions source.

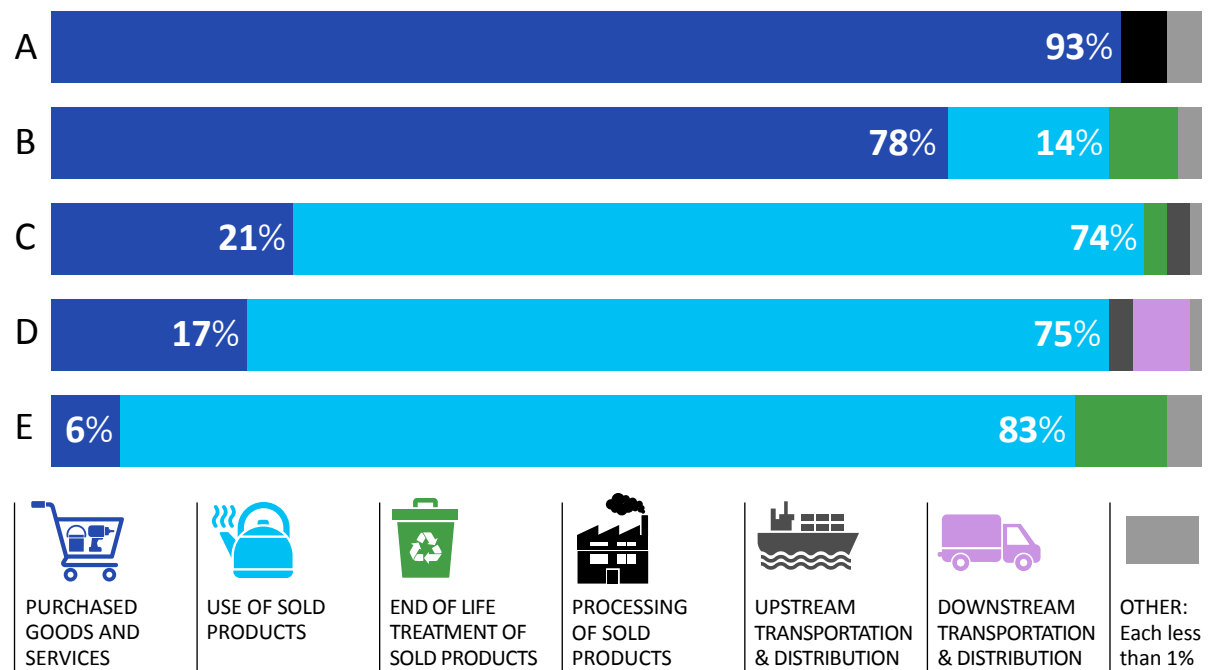
3.3 KEY TAKEAWAYS

The sector demonstrates a wide range of progress levels when it comes to Scope 3 accounting and targeting. We have identified that support is needed to get companies started, and then help them progress towards the ideal level of robustness. This guide is the first stage in supporting this.

Of the 15 categories of Scope 3, the two largest by far, and the focus for more detailed guidance in this document, are:

- **Category 1, Purchased Goods and Services** – With emphasis on the supply chain emissions of products for resale.
- **Category 11, In-life usage emissions products** – Particularly energy using products.

Figure 6: Example Scope 3 inventories of five real home improvement sector retailers:



Retailers’ GHG emissions are normally dominated by Scope 3 sources due to their complex supply chains, large customer bases and relatively small Scope 1 and 2 emissions.

Chapter 4

Measuring Scope 3 Emissions

→ SCREENING

→ DATA QUALITY

→ CALCULATING EMISSIONS

4.1 SCREENING

Companies should at the outset assess whether each of the 15 categories are relevant. Categories that are not, should be omitted, for example if a company does not own any franchises, then category 14 will be excluded. Some Scope 3 emission sources may be immaterial, and you may wish to exclude these categories from ongoing reporting once you've quantified them in the screening process. The SBTi guidance suggests that companies may exclude a maximum of 5% of emissions from their total Scope 3 inventory when setting a target, but you should set this threshold based on your individual circumstances.

4.2 DATA QUALITY

Data should be collected over a 12-month period following either a calendar or financial year that represents the operational activities of your business. It is essential to gather data that reflects emission producing activities over the reporting period. This involves using reliable sources and employing robust data collection methods to minimise errors and ensure completeness. This hierarchy can be applied to all categories of Scope 3, though spend-based does not work for several downstream categories.

Figure 7: Scope 3 data collection



Good record keeping is critical for maintaining transparency and accountability. All data sources, methodologies, and assumptions used in the data collection process should be well-documented, and calculations clearly set up in spreadsheets or specialist software – see *chapter 7 on Tools*.

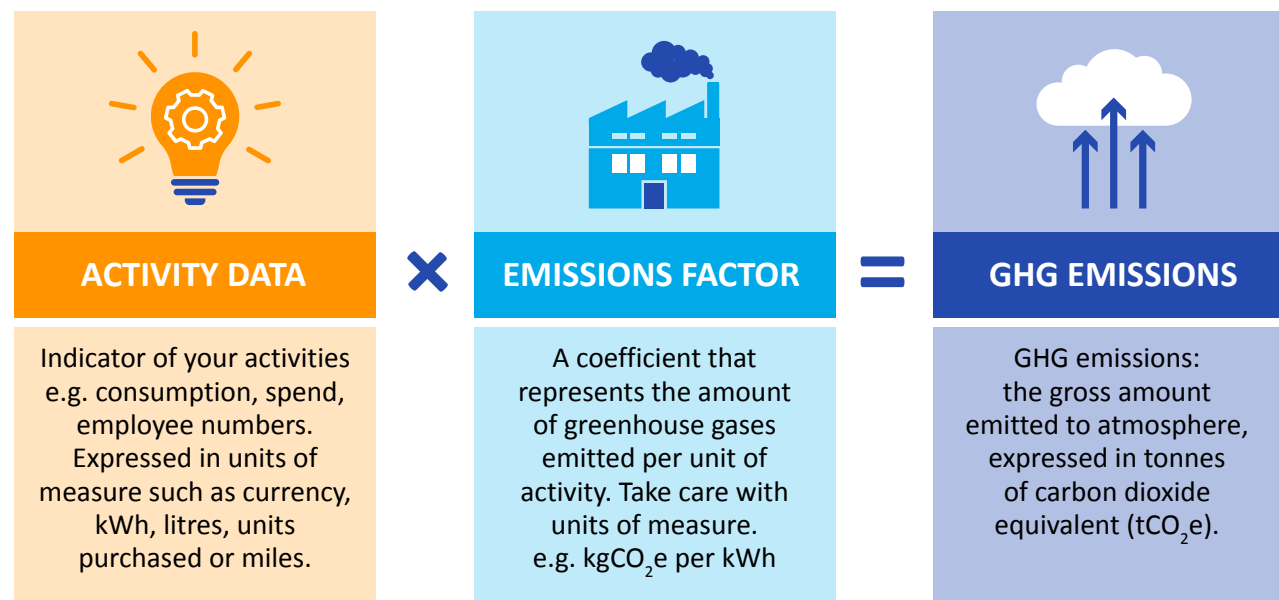
Good data management and documentation facilitates auditing and reviewing, especially if you choose to undertake third-party verification of your inventory. For further guidance, ISO14064 provides guidelines for managing data quality, including measures for accuracy, completeness, consistency, and transparency in GHG emissions data collection and reporting processes.



4.3 CALCULATING EMISSIONS

All GHG emissions calculations are ultimately based on the same principles.

Figure 8: Calculating GHG emissions



VERIFICATION AND ASSURANCE

Data quality is key for reliable public disclosures and robust tracking of performance over time. The robustness of your emissions calculations and report can be tested and proven by commissioning verification of your data and achievement of a level of assurance. The most widely applied standard against which Scope 3 emissions can be verified is ISO14064:3 <https://www.iso.org/standard/66455.html>

This verification work is carried out by dedicated assurance and consultancy companies as well as many accountancy firms. It is particularly worthwhile to carry out ahead of submissions to CDP and the Science Based Targets Initiative.

Chapter 5

Purchased Goods and Services

- INTRODUCTION TO PURCHASED GOODS AND SERVICES
- CALCULATING EMISSIONS FROM GOODS FOR RESALE
- DEVELOPING YOUR METHODOLOGY
- USING PRODUCT CARBON FOOTPRINTS (PCF) AND ENVIRONMENTAL PRODUCT DECLARATIONS (EPD)
- CONVERSION FACTOR SOURCES
- EDRA/GHIN MEMBERS' CATEGORY 1 METHODOLOGY
- FORESTRY, LAND USE AND AGRICULTURE EMISSIONS

5.1 INTRODUCTION TO PURCHASED GOODS AND SERVICES

Purchased goods and services is normally the largest or second largest category. This emission sources includes direct and indirect spend, accounted for as operational expenditure (OPEX). For a retailer, Scope 3 Category 1 covers the purchase of goods for resale, as well as business overheads. Expenses relating to private individuals (staff wages, pension contributions) and taxes are not normally reportable in Scope 3, other than commuting (Category 7). Some specific areas of OPEX spend have their own Scope 3 category; Transport (Category 4), Waste Disposal (5) and Business Travel (6). This chapter is focussed on by far the largest share of Scope 3 Category 1 for retailers, which is purchased goods for resale. Capital spend is accounted for in Category 2 and follows the same types of method as Category 1.

5.2 CALCULATING EMISSIONS FROM GOODS FOR RESALE

There are several methods that can be used to calculate emissions from purchased goods, as outlined below. Suggested sources of conversion factors are listed in section 5.5.

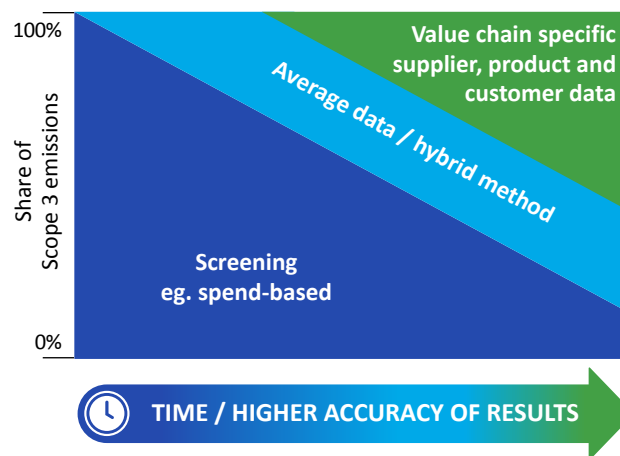
Approach	Inputs	Conversion factor types	Benefits	Limitations	Worked example
Spend-based	Spend on goods for resale. <i>Aggregate by your product cataloguing hierarchy.</i>	National or industry average - CO ₂ e per unit of spend, allocated by type of product or sector of spend.	A time and cost-efficient method. Indicative results, usable for screening and hotspot identification.	Cannot account well for such variables as economies of scale and variability between suppliers.	\$ spend x conversion factor. <i>You may need to adjust spend for inflation to the year of the conversion factor.</i>
Quantity-based (average data method)	Quantity purchased of key materials in weight, volume. <i>Break down complex products into constituent parts.</i>	Material CO ₂ e per unit quantity purchased, based on averages or academic studies.	Balanced in terms of cost and time required. Improved accuracy. Supports comparison year-on-year and allows comparison between different materials and regions.	Factors may not be available for certain, more complex products and may not allow for variance between suppliers and regions. Unlikely to reflect your specific products.	Purchased quantity in tonnes x emissions per tonne of product.

Approach	Inputs	Conversion factor types	Benefits	Limitations	Worked example
Supplier specific	Spend on goods per suppliers and your share of their revenue.	Supplier Scope 1,2,3 data ⁵ .	Higher level of accuracy and robust year-on-year comparison.	Higher time and data collection requirements. Potential inconsistency between suppliers. May not differentiate by product.	Supplier total Scope 1,2, upstream Scope 3 emissions divided by your share of their revenue or sale volume.
Product specific	Purchased quantities per product type.	PCFs and EPDs.	Highest level of accuracy and robust year-on-year comparison. Can start with applying PCFs to similar products and working towards brand and stock keeping unit (SKU)-level data.	Higher time and data collection requirements. Data quality can vary between suppliers and suppliers. PCFs may not be available for many products, yet.	Emissions per product x purchased quantity.



5.3 DEVELOPING YOUR METHODOLOGY

It can be difficult to know where to begin when first calculating your emissions from purchased goods. Most companies start with a spend-based method, then over time increase the share of emissions that are accounted for using product or supplier-specific approaches, as illustrated on the right:



Most companies start with a spend-based method, then over time increase the share of emissions that are accounted for using product or supplier-specific approaches

⁵ For service sector purchases, Scope 1 and 2 data may be enough to capture all material emissions e.g. from consultancy or IT hosting. For product purchases, you would need the full Scope 1, 2 and upstream Scope 3 of the supplier for a realistic indication of the carbon emissions from the products purchased.

The following steps outline the processes you should follow to gradually develop the accuracy of your accounting methodology.

1 Collect and manage your product spend data effectively. A data management process should be in place to collect and collate data in a uniform way to ensure that it is easy to process. You can engage with your procurement department to ensure that a system is in place to categorise data efficiently.

2 Group your products into appropriate categories or families, as well as other company-specific categories such as department and country/region. Don't attempt analysis at the SKU⁶ level from the outset, group into a manageable and recognisable set of product types.

3 Start with the spend-based approach for your baseline, which is the most straightforward and time efficient method.

4 Identify hotspots: using the results from your initial calculations rank and identify the products, sector or suppliers that present the largest source of emissions (hotspots) and prioritise these for data improvement.

5 Apply average-data methodology where feasible; this is normally most readily available for more uniform bulk products such as timber, cement, aggregates and compost.

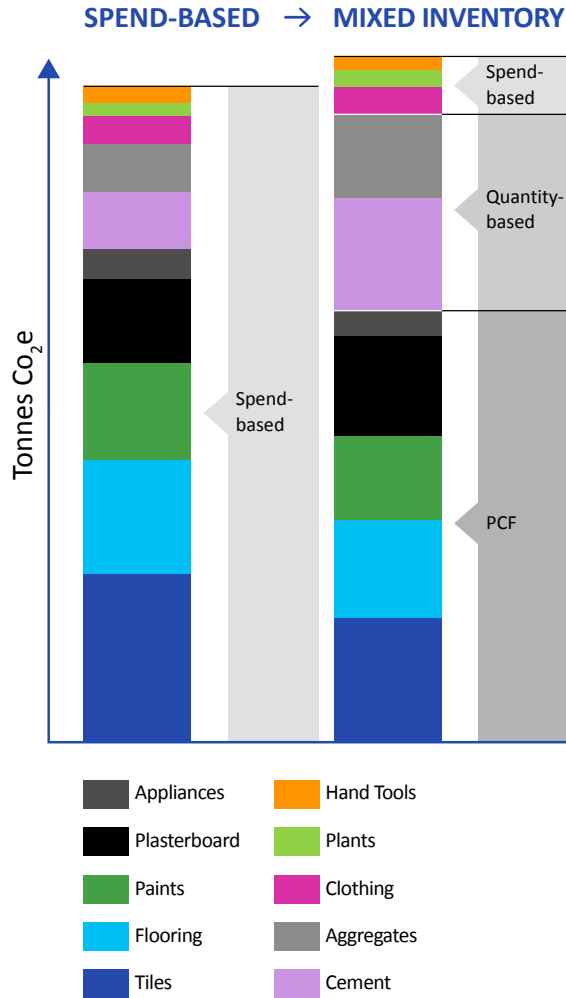
6 At the next opportunity, such as in year 2, develop your strategy for applying supplier and product-specific emissions data for your most material products.

7 Apply your improvement process to more products and suppliers over time, improving the overall accuracy of your Scope 3 GHG inventory.

8 Review and re-baseline: You are likely to see some adjustment in the reportable figures as you change the method used, so regularly consider the need to re-baseline your emissions as your data granularity improves. *Refer to the advice on re-baselining.*

6 Stock Keeping Unit, individual product reference.

Figure 9: Journey from spend-based hotspots to a mixed inventory



5.4 USING PRODUCT CARBON FOOTPRINTS (PCF) AND ENVIRONMENTAL PRODUCT DECLARATIONS (EPD)

A PCF measures the total greenhouse gas emissions associated with a product’s lifecycle, from extraction, production and transport, to use and disposal. Different parts of a product lifecycle correlate with Scope 3 categories. The sections of a PCF that will reflect Category 1 emissions are raw material extraction, processing, and production by the supplier.

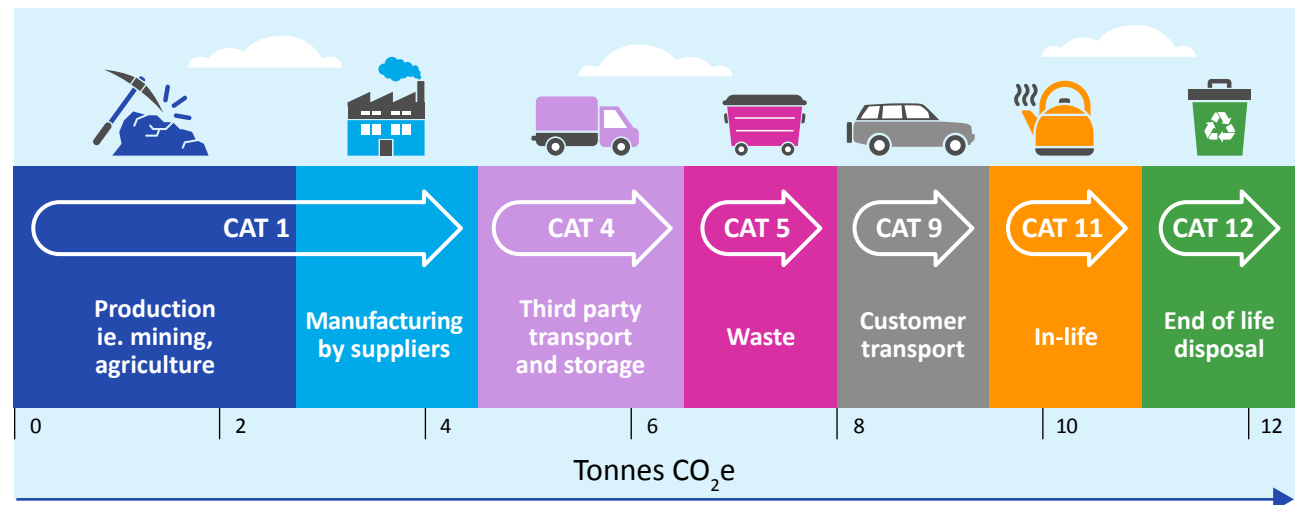
This includes forest, land and agriculture emissions, known as FLAG emissions. *More info on FLAG below.* The other stages of the product lifecycle should be allocated into other Scope 3 categories. For example, third party haulage and warehousing should be allocated to Category 4, waste (if from your own site) to Category 5,

transport operated by customers to Category 9, in-life emissions as Category 11 and end of life disposal as Category 12.

EPDs offer a broader view of a product’s impacts based on a standardised methodology, including the equivalent of their PCF. In addition to the emissions impact across a product’s lifecycle, EPDs also include resource consumption such as water usage and pollution. Both PCFs and EPDs can be used to calculate Category 1 emissions.

The specific definitions of the lifecycle stage vary by type of PCF, but here is an illustration:

Figure 10: Overlap within a product’s lifecycle and Scope 3 categories, based on a retailer:



5.5 CONVERSION FACTOR SOURCES

One of the major challenges faced when calculating the emissions from Purchased Goods and Services is sourcing the right conversion factors. Here is a list of suggested options. They are intended as guidance and do not form endorsement. Some of these databases require a license or software to access.

Table 2: Summary of conversion factor sources for category 1 emissions

Method	Source	Link
Spend-based	UK Government/ University of Leeds	Source
Spend-based	US Government	Source
Spend-based	Exiobase	Source
Quantity-based	ADEME (France)	Source
Quantity-based	Agribalyse (France)	Source
Quantity-based	UK Government Conversion Factors	Source
Quantity-based and PCF/EPD	Ecoinvent	Source
PCF/ Lifecycle	GHG Protocol List of Databases	Source
PCF	INIES (France)	Source
EPD	The International EPD System	Source
PCFs	Direct from your suppliers, potentially via such channels as those listed below, and <i>the tools listed in chapter 7</i> .	
Supplier emissions data channel	Ecovadis	Source
Supplier emissions data channel	M2030	Source
Supplier emissions data channel	CDP	Source
Supplier emissions data channel	Emitwise	Source

Other potential supplier data channels provided in chapter 7.

CAN WE RELY ON PRODUCT CARBON FOOTPRINTS?

PCFs, a measure of the carbon emissions associated with the lifecycle of a specific product, are generally the most accurate way to measure the supply chain emissions of your purchased goods. However there is a potential for inconsistent methodology and boundaries between these PCFs, meaning that products would not be comparable.

To deal with this challenge, the **Partnership for Carbon Transparency (PACT)** is working to create standards for PCF calculation and exchange. More info: <https://www.carbon-transparency.com/>

There are also sector-specific examples of PCF standards and network development, such as the chemicals sector's Together for Sustainability programme to improve the quality and availability of PCFs. <https://www.tfs-initiative.com/>

In Europe, **EPDs** have already proven a valuable source of product carbon footprint data, particularly for construction products, and are generally considered robust as they must meet certain ISO standard(s).

ISO 14067 specifies the principles, requirements and guidelines for the quantification and reporting of the carbon footprint of a product (PCF) and is consistent with life cycle assessment (LCA) Standards (ISO 14040 and ISO 14044).

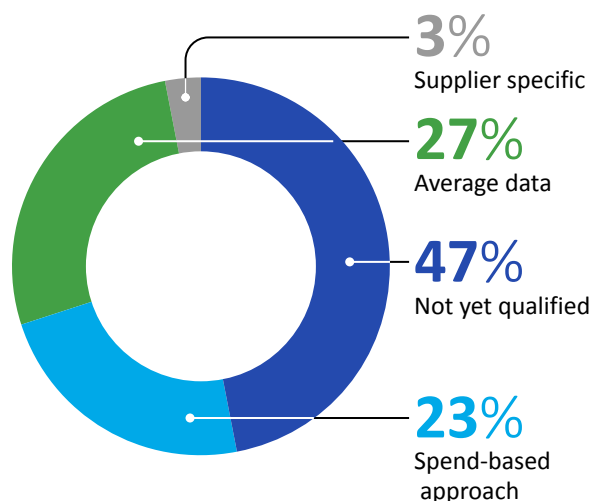
PCFs are a rapidly developing area and EDRA/GHIN will keep monitoring best practice for its members.

5.6 EDRA/GHIN MEMBERS' CATEGORY 1 METHODOLOGY

Around half of surveyed members have calculated and reported at least some of their Scope 3 emissions categories, showing that while progress has been made in recent years, this is still a new area for many in the sector. Of those that reported Scope 3, it was closely split between those still using a form of spend-based calculations, and those that have used a quantity-based (average data) method for some or all of their Category 1 emissions.

While several companies have, anecdotally, started using or trialling product or supplier-specific data internally, only a small minority have so far reported their supply chain emissions using supplier-specific data such as PCFs.

Figure 11: EDRA/GHIN survey of their Scope 1 methodology



5.7 FORESTRY, LAND USE AND AGRICULTURE EMISSIONS

WHY ARE THEY RELEVANT?

22% of global greenhouse gas emissions come from agriculture, forestry and other land use. Together they are referred to as FLAG, which form a share of most home improvement retailers' GHG inventories. If you sell products containing timber, leather, cotton, vegetable oils, and even mineral products from recently created quarries, then you will have FLAG emissions taking place in your supply chain. *Note that CO₂ emissions from bioenergy are not considered FLAG.*

The SBTi have recently started requiring companies to estimate their FLAG emissions when setting their Science Based Targets.

HOW TO QUANTIFY FLAG?

An initial screening using spend-based calculations can give a very approximate indication of the upper ceiling of emissions from products of this type in your inventory –

i.e. the spend-based emissions from agricultural products will contain FLAG emissions along with many other sources along the supply chain.

To measure FLAG with accuracy requires the use of PCFs or other material-specific carbon factors, which can be for generic materials, but ideally specific to your sold products and suppliers.

This is a relatively complex area of GHG accounting, so for further guidance see: sciencebasedtargets.org/sectors/forest-land-and-agriculture ghgprotocol.org/land-sector-and-removals-guidance

If your FLAG emissions exceed the threshold of 20% of your total Scope 1,2 and 3, then SBTi require you to set a FLAG target and a commitment related to deforestation. This would then demand that you further develop your measurement of FLAG emissions in your product mix. *For more information about targets see chapter 8.*

Chapter 6

Use of Sold Products

- IN LIFE EMISSIONS FROM USE OF SOLD PRODUCTS
- CATEGORY 11 COVERAGE
- APPROACHES TO CALCULATING CATEGORY 11
- DEVELOPING YOUR CATEGORY 11 METHODOLOGY
- WHERE TO OBTAIN INPUT FOR YOUR CALCULATIONS
- ELECTRICITY CONVERSION FACTORS
- WHOLE LIFE CONVERSION FACTORS

6.1 IN LIFE EMISSIONS FROM USE OF SOLD PRODUCTS

Category 11 is a key Scope 3 emissions source for retailers that sell energy-using products and fuels. It accounts for the emissions caused by the product during its lifetime usage.

For home improvement retailers, it accounts for, on average, 26% of Scope 3. This reflects high volume sales of energy consuming goods and the long lifetimes of many of these products. Through their product mix and information provided to consumers, retailers have a huge opportunity to influence consumer emissions.



6.2 CATEGORY 11 COVERAGE

Table 3 shows examples of typical goods which should be considered when calculating Category 11 emissions:

Table 3: Example sources of Category 11 emissions

 Domestic Appliances	 Heating and Cooling	 Small Appliances	 Combustion Fuel	 Lighting Products	 Miscellaneous Categories
<ul style="list-style-type: none"> • Ovens • Microwaves • Washing machines • Fridges 	<ul style="list-style-type: none"> • Boilers, stoves and furnaces • Electric space heaters • Water heaters • Air conditioning and heat pumps 	<ul style="list-style-type: none"> • Kettles • Blenders • Air fryers • Fans 	<ul style="list-style-type: none"> • Coal • Wood • Ethanol • Propane, LPG, and butane 	<ul style="list-style-type: none"> • Light bulbs • Lighting products with bulbs/LED included 	<ul style="list-style-type: none"> • Generators • Air compressors • Workshop power tools • Garden power tools

IDENTIFYING PRODUCTS AND MATERIALITY

The products you need to cover in Category 11 will depend on your sales offer; it is good practice to start by quantifying any and all applicable sold products to identify those that are material sources of emissions.

You can make an early judgement based on materiality, though. Devices with very small energy loads can often be excluded, such as battery chargers (not the associated tools!), thermostats, infra-red sensors, smoke alarms, battery-powered portable devices such as torches, and very occasionally used appliances (e.g. garage door motors and can openers).

AVOIDING DOUBLE COUNTING

Care should be taken to avoid double counting, such as:

- Rechargeable batteries sold with products – capture the consumption in the tool, not the battery or the charger.
- Products sold packaged with fuel so you capture lifetime emissions, not just the single bottle of gas..
- Lighting products without bulbs – only count bulb sales.



NON-EMITTING PRODUCTS

Common products that can be excluded as they do not generate emissions in Category 11:

- Cables and pipes
- Passive heat, cooling and air products – water filled radiators, vents, ducting.
- Pre-charged batteries (capture their emissions upstream in Category 1)
- Air-powered tools (capture the electricity at the air compressor)
- Hand tools

DIRECT AND INDIRECT EMISSIONS

In-life emissions can include both direct (relating to energy consumption by and fugitive emissions from the product) and indirect, such as maintenance and cleaning of the product. For home improvement retailers, the recommendation is to only capture direct emissions in order to focus on the most material emissions sources.

Figure 12: Calculating use of sold products GHG emissions



The products you need to cover in Category 11 will depend on your sales offer; it is good practice to start by quantifying any and all applicable sold products to identify those that are material sources of emissions.

6.3 APPROACHES TO CALCULATING CATEGORY 11

These enable you to estimate the lifetime energy consumption in kWh of all sold products and fuels, then feeding into the calculation steps above.

Table 4: Summary of how to calculate different type of products

Calculation type/ product	Example product types	Annual energy consumption calculation	Suggestions
Product with stated kWh per-cycle consumption	Washing machines, dishwashers	Per cycle consumption (kWh) x cycles per year	
Appliance with stated annual consumption	Fridges, freezers, gas boilers	Annual consumption (kWh)	
Corded tools	Saws, mowers, welding, drills, sanders etc Air compressors	Instantaneous consumption (watts) x hours usage per day x days per year	Consider different assumptions for consumer and professional versions of tools
All other mains powered electrical goods	Heating, water heaters, air conditioning, lighting	Instantaneous consumption (watts) x hours per year	For products with variable consumption or thermostat control, consider using either a weighted average wattage rating or annual load factor to adjust the hours.
Fossil fuelled heating	Gas and oil boilers and water heaters. (if annual consumption estimates not available for given product or region)	Rated heat output (kW) divided by seasonal efficiency x hours per year in operation	For products with variable consumption or thermostat control, consider using either a weighted average wattage rating or annual load factor to adjust the hours to equivalent of maximum output.
Fuelled tools	Mowers, chain saws, generators	Rated power output divided by efficiency x hours per year in operation	1hp = 0.7457kW
Rechargeable battery products	Workshop and garden tools	Battery capacity x charging cycles per year	Note that Watt-hour = Amp-hour x Voltage of product
Combustion of sold fuels	Coal, petrol, LPG, propane, butane, paraffin Biomass: charcoal, wood pellets	Volume in pack x Energy conversion factor e.g. 10kg of coal x 8kWh per kg = 80kWh per pack	You may capture the units of measure and product capacity in retail management software.
Fugitive emissions	Air conditioning refrigerants	Estimated annual leakage of refrigerant in kg per unit sold	May be significant for large sellers of air conditioning and heat pumps. Ensure to account for the varying global warming potentials between refrigerant types.

6.4 DEVELOPING YOUR CATEGORY 11 METHODOLOGY

- **Screening:** Start by screening and estimating the baseline emissions of all applicable products, basing your calculations on representative samples of each product family e.g. use data for the highest seller across all products, or take an average across a small section of the range. Build up your calculations using the inputs set out below. Make usage assumptions based on published references.
- **Hotspots:** Once you’ve quantified and screened your baseline emissions, identify the hotspots in your product range, which may include:
 - Energy intensive, long life goods e.g. heaters, generators
 - Fossil fuel burning products e.g. gas boilers
 - Very high volume products e.g. light bulbs

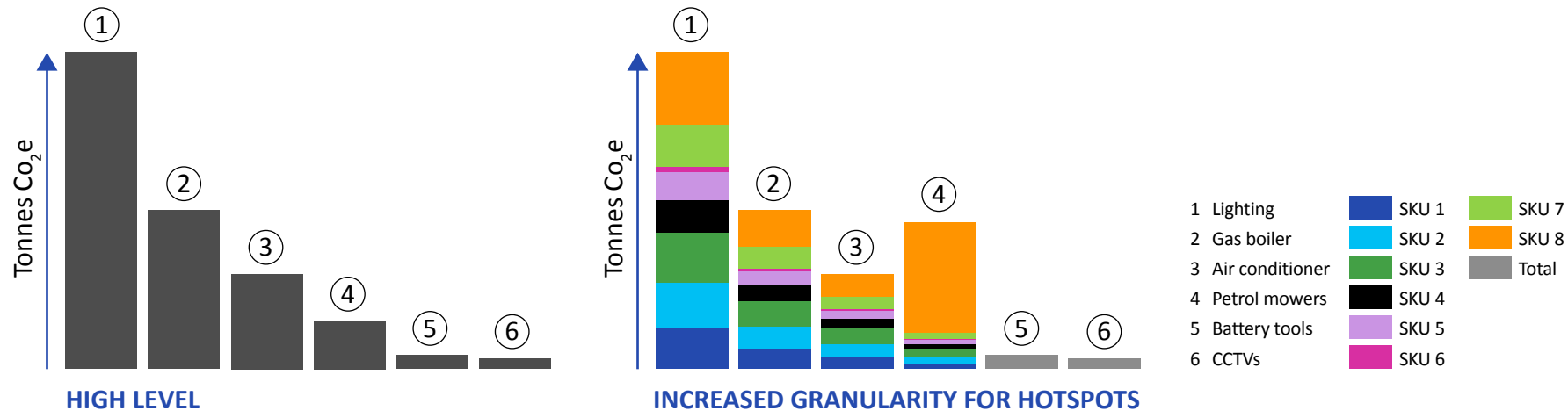
- Improve robustness: For hotspots, you can then improve the confidence in the results by increasing the granularity of your input data. For example, obtaining SKU level energy consumption figures for hotspot products.
- **Review and re-baseline:** You may need to update your baseline if the evolving assumptions cause a significant change to reportable emissions
 - This helps you track changes over time, in particular as you work to improve the efficiency and carbon intensity of your product range.
 - It can also highlight skewed results in such cases where high consuming products are not well represented by sampling, as illustrated by the petrol mowers in Figure 13 below.
- **Deprioritise:** For the less significant emitters, you can continue to use the representative sample approach, such as the battery tools and CCTV examples below.

THE RILA DATABASE

Developed for the Retail Industry Leaders Association (RILA) in the United States, the Direct-Use Product Emissions Database (DPED) provided energy consumption and emissions data for over 180 retail product types. It will be available to access from mid 2024 from RILA. <https://www.rila.org/focus-areas/legal-affairs-compliance/rila-optera-partner-retail-product-emissions-data>



Figure 13: Improving granularity of hotspot products



6.5 WHERE TO OBTAIN INPUT FOR YOUR CALCULATIONS

Input to calculation	Suggested sources	Comment
Appliance energy usage assumptions	<ul style="list-style-type: none"> • European Product Registry for Energy Labelling https://eprelec.europa.eu/screen/home • RILA database • Product labelling e.g. wattage, battery capacity. • Manufacturers specifications • In-use phase of PCFs and EPDs. • Academic literature on user behaviour and product operation e.g. annual usage times, heating and cooling seasons. 	For some product types you may need to produce your own usage assumptions if they cannot be located in the suggested sources.
Product lifespan (years)	<ul style="list-style-type: none"> • RILA database • Academic literature • Manufacturer's specifications 	For enhanced accuracy, you may choose to vary the lifetime assumption between different products (e.g. higher quality products last longer) and different markets e.g. air conditioning units may last longer in milder climates.
Fuel and electricity emissions conversion factors	<ul style="list-style-type: none"> • UK Government (DEFRA)⁷ • US EPA⁸ • IEA, for international electricity factors 	
Product efficiency assumptions	<ul style="list-style-type: none"> • Manufacturers specifications • Academic literature 	

CATEGORY 11 TIPS

- Ensure you consider product pack sizes in your analysis to avoid under counting e.g. light bulbs often come in multipacks.
- Many power tools will only have their energy usage expressed in volts and amps. Calculate Wattage with Amps x Volts.
- Make sure to account for fuel consumption, not power or heat output. For example, a 25kW rated gas boiler may consume gas at the rate of 28kW, due to losses in combustion.
- For products that modulate (cycle), such as boilers and air conditioning, make sure to account for their seasonal load factor, rather than assuming they run at full capacity all the time.
- Some products use more than one energy type e.g. boilers consume gas/oil and electricity. Consider whether they are all material, though.
- Products containing refrigerants, such as air conditioning units, may leak refrigerant gas. This can also be a source of greenhouse gases and should be screened for significance.
- If products that release Volatile Organic Compounds, such as paints, are a substantial share of your product sales mix then the emissions during their usage may be a material source of GHGs and should be screened.

⁷ <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023>

⁸ <https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references>

6.6 ELECTRICITY CONVERSION FACTORS

Electricity-related emissions must account for the emissions intensity of the electricity supply in the region where you sell products. This means that an identical electrical product can have different lifetime emissions in different countries. *Also consider the lifecycle emissions from the electricity, below.*

6.7 WHOLE LIFE CONVERSION FACTORS

Category 11 calculations, like most Scope 3 accounting, should include the whole life conversion factors for electricity and combusted fuels. This includes combustion, as well as the fuel supply chain (“well to tank” or WTT) and in the case of electricity, transmission and distribution losses and their own respective WTT.

The exception being the combustion of fuel that you have sold, as the upstream emissions should be reported in your Category 1 total, so only report the combustion emissions in Category 11.



BIOMASS FUELS

It is normal practice under the GHG Protocol to exclude the carbon dioxide from the combustion stage as this reflects that the biomass fuel has recently captured the CO₂ in its growing cycle, and this CO₂ can notionally be re-captured in producing the next round of fuels. However, the other GHG emissions should be included, comprising methane, N₂O and well to tank emissions.

Reporting companies may also choose to include the CO₂ in an “out of Scopes” figure, to reflect the emitted CO₂ from the biomass and conservatively reflect the full greenhouse gas impact of the fuel.

SHOULD WE ACCOUNT FOR POSSIBLE FUTURE DECREASES IN THE CARBON INTENSITY OF ELECTRICITY?

Goods sold today will be in operation for a number of years, and in this time it can be expected that the carbon intensity of electricity supplies in most regions will reduce in line with increases in renewables, nuclear and carbon capture.

However, the correct approach remains to use the current conversion factors. While Category 11 requires you to account for lifetime emissions, it is in line with GHG Protocol guidance to use the same approach for all years of operation i.e. multiplying lifetime consumption by the prevailing conversion factor.

This also makes it much simpler to manage your reporting process, keep consistent with your peers, and avoids introducing uncertainty, rather than having to obtain updated carbon intensity projections every reporting cycle.

Over time the impact of changes, most typically reductions, in electricity carbon intensity will still become apparent in your reported Category 11 emissions.

However, it is recommended that you do consider future changes in energy mix (and therefore carbon intensity) when considering your future emissions, such as in the process of choosing a Scope 3 Target. *See chapter 8 for Target guidance.*

Chapter 7

Tools

→ CALCULATING AND STORING YOUR GHG EMISSIONS DATA

→ COLLECTING EMISSION DATA FROM SUPPLIERS

→ CONSIDERATIONS IN YOUR TOOL SELECTION PROCESS

7.1 CALCULATING AND STORING YOUR GHG EMISSIONS DATA

There is a large and ever-growing range of software platforms that store and validate data, calculate and report your Scope 1, 2 and 3 GHG emissions and track progress against reduction targets. While many organisations still use spreadsheets for this, or outsource to specialist consultants, dedicated software platforms are becoming necessary for many companies to manage the large volumes of data involved in Scope 3 accounting.

The Scope 3 Peer Group regularly gathers information and opinions on the solutions available in this market, which can be found here: <https://www.scope3peergroup.com/resources/#datatools>.

7.2 COLLECTING EMISSION DATA FROM SUPPLIERS

Improving the measurement of Scope 3 categories, in particular Category 1 will require collection of data about your suppliers and their products. Here are several platforms to consider that are popular among EDRA/GHIN members. Several others can be identified via the Scope 3 Peer Group link.

Guidance on selecting your tool is provided overleaf.

Table 5: Examples of platforms used to collect data from suppliers

Method	Description	Link
Carbon Disclosure Project (CDP)	CDP is a global environmental disclosure system used by companies, cities, and states to disclose their emissions, water usage and deforestation risks.	Source
Manufacture 2030	M2030 is a platform that measures suppliers' Scope 1, 2 and 3 emissions and tracks their progress in decarbonisation. It is also starting to incorporate PCF generation and collection.	Source
Ecovadis	Ecovadis assesses the sustainability performance of companies and rates them across several criteria.	Source
Sedex	Sedex is a platform that allows companies to analyse, share and report on sustainability metrics.	Source
GS1	productDNA: A single catalogue of high-quality, independently verified data that allows the retail industry to use one common language to describe and share all product information. They are increasing the provision of environmental product data.	Source
Amfori	The Amfori Sustainability Platform is designed to help you map your supply chain, and collect critical information, so that you can identify impacts on the environment as well as workers' lives.	Source

7.3 CONSIDERATIONS IN YOUR TOOL SELECTION PROCESS

- Does it cover and even specialise in key emissions sources for your business e.g. Category 1, 11?
- Are there add-ons available to any of your existing procurement, accounting, internal management or ESG platforms?
- What are your requirements for audit and assurance, and can the platform support them?
- Is it future proof- will it let you improve and combine different data types over time? E.g. move from spend-based to PCF-based supply chain emissions accounting?
- For supplier data gathering, is there a platform where several of your existing suppliers already share emissions data, such as CDP?



Chapter 8

Decarbonisation Targets and Target Setting

- EDRA/GHIN SCOPE 3 COMMITMENT
- EDRA/GHIN MEMBERS' SCOPE 3 TARGETS
- TARGET PROGRESS LEVELS
- KEY CONSIDERATIONS WHEN SETTING A TARGET
- SETTING AND UPDATING YOUR BASELINE
- HOW TO SET A TARGET
- EXAMPLE OF SCOPE 3 TARGETS
- SUPPLIER ENGAGEMENT FOR TARGET SETTING

8.1 EDRA/GHIN SCOPE 3 COMMITMENT

EDRA/GHIN recognises the importance of working together and setting out ambitious objectives to decarbonise our sector. The global DIY and home improvement sector will take action to limit global temperatures to well below 2C in alignment with the Paris Agreement on climate change.

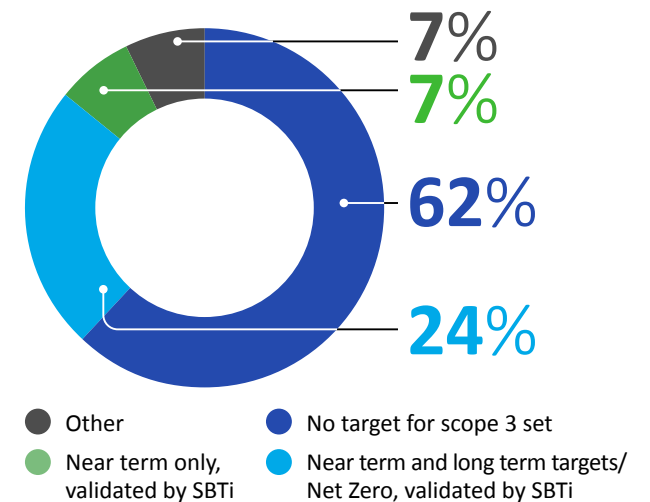


Full details of the specifics of this commitment and the associated strategy programme are provided in the separate Scope 3 Strategy and Roadmap document. This chapter now provides guidance on how home improvement retailers can set suitable Scope 3 targets.

8.2 EDRA/GHIN MEMBERS' SCOPE 3 TARGETS

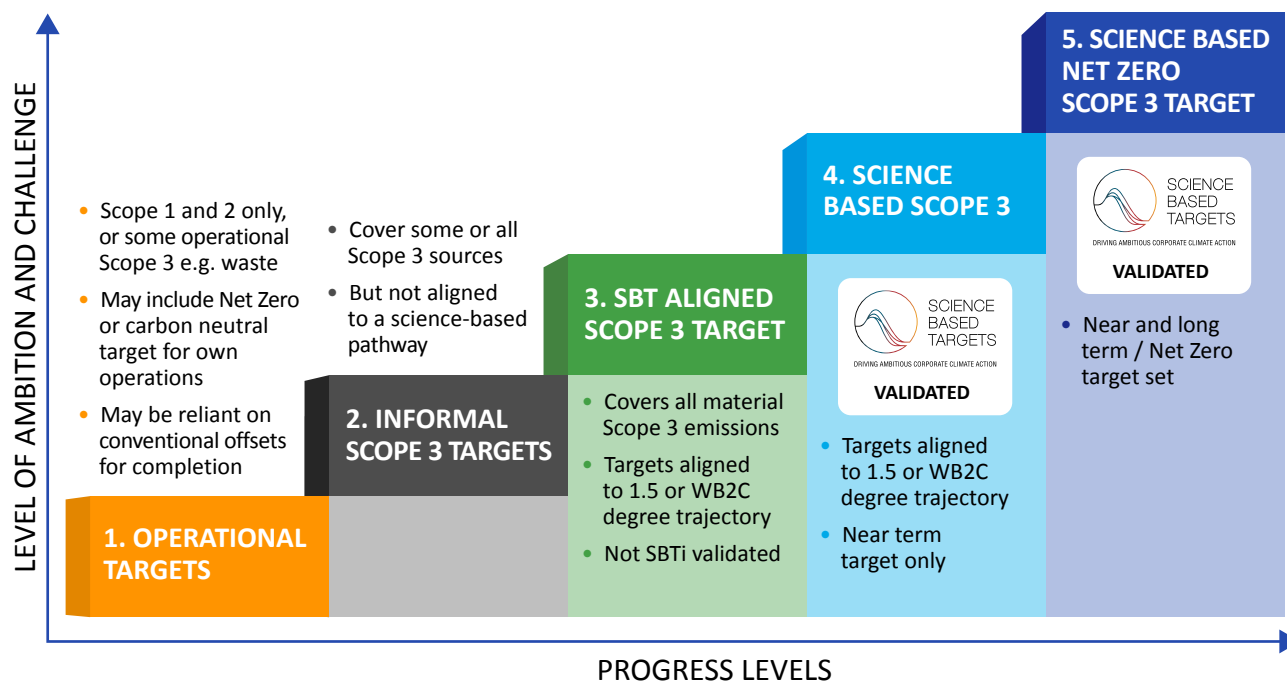
In mid-2024, around a quarter of EDRA/GHIN members who responded to our Scope 3 survey have validated, or at least have submitted a long term or Net Zero target to the Science Based Targets Initiative (SBTi), while 62% of members do not yet have a Scope 3 target. The rest either have a near-term Science Based Target or another variation. This disparity is to be expected given that almost half of the members have not yet calculated their Scope 3 emissions and hence will not be able to set a Science Based Target.

Figure 14: Scope 3 target commitments by EDRA/GHIN members



8.3 TARGET PROGRESS LEVELS

Consultation with the EDRA/GHIN membership has defined five levels of maturity or progress, which serves as a guide of how you can develop the robustness and coverage of your Scope 3 targets:



8.4 KEY CONSIDERATIONS WHEN SETTING A TARGET

It is correct practice to set Scope 1 and 2 targets ahead of, or alongside, setting your Scope 3 target. Concerning your Scope 3 target, consider:

Which categories of Scope 3 to include?

- Consider materiality and your prioritisation approach to focus your targets, your Scope 3 accounting and your decarbonisation efforts. Consider the inclusion thresholds of Science Based Targets, as below.

What type of Scope 3 target?

- Absolute reductions, expressed in a % reduction of total baseline emissions,
- Or, improvements in carbon intensity (e.g. expressed as a % reduction in emissions per unit of gross profit⁹ or production/sales volumes)?
- Take responsibility for the reductions in your own Scope 3 inventory, or encourage suppliers to set their own targets?
- Product specific targets e.g. energy consumption and emissions by sold goods

Is the target feasible for us to achieve?

- Consider your Scope 3 strategy:
 - Do we have the budget and ability to influence and engage our suppliers?
 - Do we have the resources and organisational capability to progress this work?
 - Will we benefit from external decarbonisation, such as of electricity supplies?
 - What is the timetable for us to achieve the targets?

9 SBTi allow intensity targets based on Gross Value Add, for example.

8.5 SETTING AND UPDATING YOUR BASELINE

To measure future changes and improvements in your GHG inventory you must set a baseline year. This will be your benchmark year to track progress towards any emission reduction targets, such as halving emissions by 2030. You should choose a baseline year that accurately represents typical business operations.

You will likely need to re-baseline (i.e. measure and re-publish past years) when there are significant changes to your greenhouse inventory such as a change in methodology or boundaries. Common reasons for this occurring are mergers and acquisitions; and changes from spend-based to product-specific methodology for purchased goods. For example, the SBTi currently defines a significant change at 5% or more of a company’s total base-year emissions, and they provide more guidance on when a re-baseline is required as well as revalidating your target.

8.6 HOW TO SET A TARGET

While you can select a target which the organisation has itself determined to be appropriate, there are externally validated frameworks such as the SBTi, which has been widely adopted as the global standard for Scope 3 targets. Companies can broadly set two types of targets – near term, relating to steady emissions reductions between now and 2035, and long term or Net Zero targets, which commit to achieving reductions of 90% or more by 2050 or sooner.

There are four main considerations when setting near-term and long-term SBTi targets as outlined in Table 6.

Table 6: Target options within the SBTi methodology

Target	Boundary	Ambition	Timeframe	Methods
	The minimum coverage of your greenhouse gas inventory	How ambitious will the target be in limiting temperature rise	The maximum timeframe you will achieve your target in	The method in which you will set and measure your target
Near-term Science Based target (to 2035)	Scope 1 and 2: 95% Scope 3: if >40% of total emissions, then 67% coverage	Scope 1,2,3: 1.5 °C pathway (4.2% per year) Scope 3: well-below 2°C also permitted (2.5% per year)	5-10 years from submission	Scopes 1, 2: Absolute Physical intensity (specific sectors only, not retail at present) Renewable electricity Scope 3 only: Absolute Physical intensity Economic intensity Supplier engagement
Long-term Science Based target	Scope 1 and 2: 95% Scope 3: 90%	Scope 1, 2 and 3: 1.5 °C only, 90% reduction and/or Net Zero	2050 latest	Scopes 1, 2: Absolute Physical intensity (only certain sectors for Scope 1&2 , not retail at present) Renewable electricity Scope 3 only: Absolute Economic intensity Physical intensity

8.7 EXAMPLE OF SCOPE 3 TARGETS

This is a non-exhaustive list of current public Scope 3 target commitments among EDRA/GHIN members and the wider retail and wholesale sector. The long-term examples also have near-term targets, not listed here.

Type	SBTi Validated Scope 3 Targets	Company
Near-term Scope 3 Target	Kingfisher commits to reduce Scope 3 GHG emissions from use of sold products and purchased goods and services 40% per £m turnover by 2025 from a 2017 base year.	Kingfisher
	Wickes commits to reduce absolute Scope 3 GHG emissions from the use of sold products 42% by 2030 vs. 2021. Wickes further commits that 45% of its suppliers by emissions covering purchased goods and services, will have science-based targets by 2027.	Wickes
	The Home Depot commits to reduce absolute Scope 3 GHG emissions from the use of sold products 42% by 2030 vs. 2020.	The Home Depot
	STARK Group commits to reduce absolute Scope 3 GHG emissions 12.3% by 2030 vs. 2020.	Stark Group
	Kesko Corporation commits to reduce absolute Scope 3 GHG emissions from the use of sold products 17% by 2026 from a 2020 base year. Kesko Corporation commits that 67% of its suppliers by spend covering purchased goods and services, will have science-based targets by 2026.	Kesko Corporation
Long-term or Net Zero Scope 3 Target	Bygghmax Group AB commits to reduce absolute Scope 3 GHG emissions 90% by 2040 vs. 2020.	Bygghmax Group AB
	Howdens Joinery Ltd commits to reduce absolute Scope 3 GHG emissions 90% by 2050 vs. 2021.	Howdens Joinery Ltd.

8.8 SUPPLIER ENGAGEMENT FOR TARGET SETTING

Once your company has conducted a full greenhouse gas inventory and identified Category 1 hotspots you may wish to set a supplier engagement target to tackle these emissions.

A supplier engagement target is a target to drive suppliers to calculate their own emissions and then set a decarbonisation target. The figure below shows the key stages in setting targets with suppliers.

To begin with, you must first decide on how ambitious you want your target to be and the timescale it will cover. For example: *suppliers covering X% of emissions from purchased goods and services will set science-based targets by X*. Once this has been established, the next step is to identify suppliers to include in the target. The GHG Protocol recommends a tiered approach in which suppliers are ranked cumulatively from the highest proportion of emissions to the lowest.

The suppliers that contribute the highest proportion of emissions will be priority and should be the first suppliers that need to be engaged with. Within your company, a programme manager should be selected to develop accountability and monitoring frameworks for suppliers. These frameworks should clearly define supplier expectations and timelines. For example: *Priority suppliers need to set a Scope 1, 2 and 3 SBTi-aligned target within a ten-year target timeframe*.

Figure 16: Key stages in the supplier engagement process



Following on from the supplier engagement, keep track of where suppliers are in their journey. One way this can be done is by ranking suppliers with different ‘climate maturity’ levels, for example suppliers that have a full greenhouse gas inventory, and targets would be of high maturity while those that do not have a full greenhouse gas inventory would be low. You can offer additional support to low maturity suppliers such as workshops and online training to help them along their journey. Other incentive mechanisms could include business benefits or penalties tied to their performance, such as long-term contracts to climate mature suppliers.

To track the progress, you should create a tracker which includes a list of suppliers, the percent of emissions they contribute, their maturity level and their target status. A process for updating and maintaining records should be in place to ensure accurate reporting.

Target setting is merely an early step in the process of supplier engagement on Scope 3 emissions. Further engagement and action will of course be needed to gathering supplier and product specific emissions and to embark on product decarbonisation initiatives. These topics will be covered in future guidance from EDRA/GHIN.



To track progress, you should create a tracker which includes a list of suppliers, the percent of emissions they contribute, their maturity level and their target status.

Glossary of Key Terms

Key Term	Definition
Carbon Dioxide Equivalent (CO ₂ e)	The carbon dioxide equivalent (CO ₂ e) allows the different greenhouse gases to be compared on a like-for-like basis relative to one unit of CO ₂ over a given time period. This is also referred to as the global warming potential (GWP).
Carbon Footprint	A carbon footprint measures the total greenhouse gas emissions caused directly and indirectly by a person, organisation, event or product. A carbon footprint is measured in tonnes of carbon dioxide equivalent (tCO ₂ e).
Emission Factor	An emission factor is a representative value that relates the quantity of a pollutant released to the atmosphere with an activity associated with the release of that pollutant.
Greenhouse Gases	<p>The main greenhouse gases (GHG) include (Carbon dioxide (CO₂), Methane (CH₄), Nitrous oxide (N₂O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur hexafluoride (SF₆), Nitrogen trifluoride (NF₃). These gases absorb heat and trap it into the Earth's atmosphere which in turn warms the Earth's surface. An increase in greenhouse gas emissions causes a rise in temperature. The relative potency, or Global Warming Potential over 100 years, in CO₂e of each main gas is:</p> <p>Carbon Dioxide: 1</p> <p>Methane: 28</p> <p>Nitrous Oxide: 265</p> <p>HFCs: Variable upto 12,000 +</p> <p>PFCs: Variable upto 11,000 +</p> <p>SF₆: 23,500</p> <p>NF₃: 16,100</p> <p>Note these vary slightly between academic bodies and methodology used, figures included here to illustrate the scale of their relative GWP.</p>

Key Term	Definition
Mitigation	Actions that companies take to help society avoid or reduce emissions outside of their value chain, also known as beyond value chain mitigation.
Neutralization	Measures that companies can take to remove carbon from the atmosphere and permanently store it to counterbalance the impact of emissions that remain unabated. (<i>Not to be confused with carbon neutral which is based on avoided emissions offsets rather than removals</i>).
Market-based	Accounts for emissions from energy consumption based on the contract under which it is purchased. Often associated with the use of renewable electricity certificates.
Location-based	Accounts for emissions from energy consumption based on the country or region where it is purchased.
GHG Protocol	An international standard for producing Scope 3 disclosures and is aligned with the requirements of schemes such as the Science Based Targets Initiative (SBTi) ¹⁰ , CDP (Climate Change) ¹¹ and Taskforce for Climate-Related Financial Disclosures (TCFD) ¹² .
Value Chain emissions	Emissions from organisations in your supply chain, your own operations and your customers.
Supply Chain emissions	Emissions from the numerous companies that provide you with goods and services.
Upstream emissions	Emissions associated with products and services you purchase, and your employees while travelling to, from and for work.
Downstream emissions	Emissions from your customers, your tenants and investees.

¹⁰ [Science Based Targets Initiative website](#)

¹¹ [Carbon Disclosure Project, Climate website](#)

¹² [Taskforce for Climate related Financial Disclosures website](#)



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DIY Group

