Annex C

Calculating scope 3 emissions

PPN 006-compliant CRPs require suppliers to report Scope 1 and Scope 2 emissions and five specified Scope 3 categories only. Scope 3 data may therefore be incomplete, and turnover information is not required.

The Carbon Reduction Plan template in Annex A is compliant with PPN 006 and extends the information requested from suppliers to support members' own organisational Scope 3 emissions measurement. The expanded requirements include provision of turnover information and commitment to improving the provision of:

- Product/service carbon footprints
- Detailed Scope 3 emissions data for each relevant category

CRPs help determine a supplier's commitment to carbon emissions reduction and provide insight into planned activities. However, CRPs are traditionally forward-looking documents and cannot be treated as verified* emissions inventories unless explicitly assured by an independent third party. Even an improved CRP such as the one that could be provided using Annex A, has potential limitations to be aware of when it comes to calculating your own organisational carbon footprint and nothing trumps verified real product carbon footprint data for input into your calculation.

> *Definition: 'Verified' means independently assured or externally reviewed by a competent third party against recognised carbon accounting standards or methodologies. Acceptable product carbon footprint methodologies include ISO 14067, PAS 2050, the GHG Protocol Product Standard, Environmental Product Declarations (EPDs), and PAIA (Product Attribute to Impact Algorithm) — particularly for ICT and electronics products where this methodology is widely used by suppliers. Assurance should be undertaken in accordance with recognised frameworks such as ISO 14064 (limited or reasonable assurance) or equivalent. Self-certification alone is not sufficient.

When calculating attributed Scope 3 emissions, members should apply a hierarchy, using the highest method for which sufficiently complete and reliable data is available. The general principle: prioritise the most specific, attributable, and verified data available. Product-level data is preferred over organisational averages; organisational data is preferred over secondary emissions factors.

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Materiality: You do not need to calculate attributed emissions for every Scope 3 category. Focus on categories that are material to your purchased product or service. A category is normally material where likely to exceed 5%, or otherwise strategically significant. You will need to document your materiality decisions using a table such as the one at the end of this document.

1. Product or service carbon footprint

   Where the supplier has provided a verified product or service carbon footprint (PCF) for the specific product or service purchased, identify the relevant Scope 3 category in your inventory and include this figure directly in your emissions calculation.

   Source documents may include invoices, product specifications, Environmental Product Declarations (EPDs), or other verified product carbon data. For ICT products, PAIA-derived footprints are acceptable where provided by the supplier. See LUPC's NDNA Agreement for example.

   PCF is the preferred method as it provides the highest level of attribution and reflects the specific emissions associated with the purchased product or service.

   Example: A university purchases 500 laptops. The supplier provides a PAIA-verified footprint of 350 $kgCO_2e$ per unit. Attributed Scope 3 (Cat 1) = 500 × 350 = 175,000 $kgCO_2e$ = 175 tCO_2e. If using the table below, record as: method 1, product-specific, data source: supplier EPD, reporting period FY2025/26.

2. Physical intensity factor

   Where no verified product carbon footprint is available, but the supplier can provide a verified emissions figure per unit of physical output (e.g. $kgCO_2e$ per kg, per litre, per kWh, or per unit), multiply this by the quantity purchased to calculate attributed emissions.

   This method is not distorted by price fluctuations or profit margins and is particularly suitable for commodity purchases such as energy, materials, food, or other standardised products.

   Example: A university purchases 50,000 litres of diesel. The verified emissions factor is 2.544 $kgCO_2e$ per litre (DEFRA). Attributed emissions = 50,000 × 2.544 = 127,200 $kgCO_2e$ = 127.2 tCO_2e. If using the table below, record as: method 2, supplier-specific factor, DEFRA 2025 conversion factors.

3. Apportioned total emissions

   Where neither of the above is available, consider the completeness and verification status of the supplier's organisational emissions data and whether turnover or another suitable allocation basis is available.

   Where the CRP does not contain sufficient Scope 3 data to support this method, supplementary data should be sought from the supplier's sustainability report, CDP disclosure or annual report.

Where a sufficiently complete inventory and turnover figure (or another appropriate allocation basis) are available:

- Identify the supplier emissions categories that are material to the purchased product or service (see materiality note above)
- Allocate emissions using the most appropriate allocation basis. Preferred hierarchy: units purchased > production volume > service hours > mass-based allocation > spend-to-turnover ratio. Spend-to-turnover should be used as a proxy only where no better basis exists
- Apply the chosen basis across relevant Scope 1, 2 and Scope 3 categories and sum the results

Note: turnover-based apportionment assumes emissions scale proportionately with revenue. This may distort attribution where a supplier has mixed-margin divisions (e.g. high-margin consultancy alongside low-margin manufacturing). Where this is a concern, use an alternative allocation basis if available.

Example: A university spends £200,000 with a facilities supplier. The supplier's total verified emissions are 10,000 tCO_2e and annual turnover is £20m. Spend-to-turnover ratio = 1%. Attributed emissions = 1% × 10,000 = 100 tCO_2e. If using the table below, record as: method 3, spend-based estimate, material uncertainty applies.

4. Apportioned Scope 1 and 2 emissions

Where a full Scope 1, 2 and 3 inventory is unavailable, but the supplier discloses Scope 1 and 2 emissions, these may be apportioned using the same allocation basis as method 3.

This method excludes the supplier's own supply chain emissions and is only appropriate where Scope 1 and 2 are likely to represent the majority of emissions — such as in certain service-based sectors. Note: many service-sector suppliers (cloud computing, outsourced services, travel-intensive consulting) carry significant Scope 3 emissions of their own. This method should not be used for such suppliers without first confirming that Scope 1 and 2 dominate their emissions profile.

Clearly identify all results from this method as partial estimates.

5. Secondary data

Where none of the above methods is available, apply an appropriate industry-average emissions factor from an approved database (e.g. DEFRA) to your spend or activity data.

The HESCET Scope 3 report provided through your consortium may support this by providing emissions factors at supplier and procurement category level, although these are typically less specific than product or service-level data.

This should be treated as the lowest quality method and used only where supplier-specific data is unavailable.

Identify as a spend-based estimate

Recording and data quality

The method used should be recorded alongside each emissions line item, together with:

- The data source
- The reporting period
- The allocation basis used (where applicable)
- The data quality classification: primary activity data / supplier-specific factor / spend-based estimate / industry average

> Double-counting:
>
> Where product-specific carbon footprints (method 1) are used for specific purchases, do not also include those same purchases through apportioned supplier organisational emissions (methods 3 or 4). For example: if a university includes laptop PCFs under Cat 1 (purchased goods), it should exclude the equivalent portion of the supplier's apportioned Cat 1 emissions to avoid double counting the same emissions twice.

Figures derived using different calculation methods should not be directly compared without acknowledging methodological differences.

Results derived under methods 3 and 4 should be treated as estimates subject to material uncertainty.

Members should retain supporting evidence for all calculations to support audit, assurance, and organisational carbon reporting.

Where you have Scope 3 data from suppliers that is verified, you can use the below table to document your data quality assessment.

Scope 3 data quality assessment					
For each Scope 3 category that is material to your purchase, record: (a) whether the category is material; (b) the calculation method used (1–5, per Annex C hierarchy); (c) the data quality classification; and (d) any notes. This table supports your institutional Scope 3 calculation. Data quality classifications: P = Primary activity data | S = Supplier-specific factor | E = Spend-based estimate | I = Industry average					
Cat	Category	Material? Y/N	Method (1–5)	Data quality (P/S/E/I)	Notes / data source
1	Purchased goods & services				
2	Capital goods				
3	Fuel- and energy-related activities				
4	Upstream transportation & distribution				
5	Waste generated in operations				
6	Business travel				
7	Employee commuting				
8	Upstream leased assets				
9	Downstream transportation & distribution				
10	Processing of sold products				
11	Use of sold products				
12	End-of-life treatment of sold products				
13	Downstream leased assets				
14	Franchises				
15	Investments				