



Five key steps to calculating your organisational carbon (aka greenhouse gas*) footprint are:

1. Choose your footprinting method

The method you use to work out your carbon footprint may be your choice, or you may need to respond to specific client/buyer requirements. As such it is important to use a consistent internal method (and scope) to ensure a useful result, but it may also be vital that your method will be recognized externally. The GHG Protocol (<https://ghgprotocol.org/corporate-standard>) is one of the most commonly used standards. It provides detailed guidance on useful carbon footprinting methods and is *available free online*.

2. Choose your operational boundaries

'Boundary' means the activities (aspects) of your business that will you apply your carbon footprinting to. Your operational boundary will determine which carbon emission sources will be quantified, or at least estimated. It should include the full range of GHG emissions from activities under your operational control.

Standard carbon footprinting methods refer to Scope 1, 2 and 3 emissions and these Scopes are outlined in more detail in the ECA's 'Basic carbon footprinting' guide.

Usually, all your significant Scope 1 and 2 emissions should be included, though you may have more choice about any Scope 3 emissions you wish to include. One commonly recorded Scope 3 emission is business travel by non-owned vehicles (e.g. by train).

Once again, client/buyer requirements may influence the boundary you need to use, but if the choice is yours, be realistic and ensure you consider the practicalities of collecting good, representative data. If the choice is yours, you may want to start with a modest boundary (see below) rather than trying to engage with the wider carbon impacts associated with your business operations. As time goes by, you can increase your boundary if need be.

Set clear, explicit boundaries on which parts of your organisation will be included in your carbon footprint.

3. Collate your activity data

A reliable carbon footprint relies on collecting the best available data for the emission sources within the operational boundary you have set. So e.g. for gas and electricity, collect data in kilowatt hours (kWh) from meter readings or bills. You can record data for other fuels in a variety of units, such as litres or kWh. For transport emissions, collect business fuel

consumption by fuel type if possible (from fuel cards etc.). It's important to identify any significant gaps or ambiguities in the data (e.g. data in various travel types can't be separated properly) and describe any assumptions you have made that might affect your eventual findings.

You may find that you will need to change how you gather some of your raw data to improve your ability to carry out carbon footprinting.

4. Apply GHG emission factors

Your carbon footprint needs to be measured in tonnes of CO₂ equivalent (tCO₂e). This can be calculated by multiplying each set of activity data (above) by a standard *GHG emissions factor*. Although *GHG emissions factors* may sound technical, you don't have to calculate these yourself (though in some cases you might need to ask your suppliers to provide additional information).

The figure for tCO₂e for each activity can be used to:

- highlight your biggest sources of GHG emissions (top candidates for your GHG reduction initiatives) and when totalled;
- give or indicate your organisation's *overall carbon footprint* (for the operational boundary that you have set).

BEIS hosts the *very latest available* conversion factors at:

www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021

Additional, supporting information on GHG emissions factors is on the Carbon Trust website at: www.carbontrust.com/resources/conversion-factors-energy-and-carbon-conversion-guide

Background tutorial: The SupplyChain Sustainability School (www.supplychainschool.co.uk/) has produced a 45-minute tutorial on 'Carbon Measuring and Footprinting'. Signing up to the School is free and you can access the tutorial (once signed up) via: 'Search our catalogue of free learning resources' - search 'footprinting'.

5. Report on your carbon footprint

ECA will issue a separate guidance sheet on Carbon (GHG) Reporting.

***About greenhouse gases**

The emission of 'greenhouse gases' (GHGs) to the atmosphere leads to global warming and in turn, regional climate change and other climate impacts.

'Carbon' emissions (referring to carbon dioxide, a predominant GHG) is often used as shorthand for 'GHG' emissions since carbon dioxide emissions usually occur in by far the most substantial quantities.

However, there are other GHGs with much higher *global warming impacts* (per molecule) than carbon dioxide. If you are you use any other GHGs in your operations (e.g. top up air conditioning or refrigerant F-gases or SF₆) you should include any (annual) emissions of these gases as part of your GHG footprint. Though you don't have to measure the actual emissions, if you need to buy in new inventory (where legal to do so) this indicates you have incurred losses.



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