

# UNDERSTANDING YOUR CARBON FOOTPRINT

At the heart of the decarbonisation effort to combat climate change is the need to measure and track greenhouse gas emissions in an efficient way.

As both the private and public sectors continue to recognise the sustainable development agenda, it is key to ensure that carbon and greenhouse gas reduction strategies are in place, which first requires an understanding of those emissions.

## WHAT ARE GREENHOUSE GASES?

There are a number of different greenhouse gases (GHGs) that are being emitted into the atmosphere and causing climate change through the greenhouse effect, these include:

1. **Carbon dioxide (CO<sub>2</sub>)**
2. **Methane (CH<sub>4</sub>)**
3. **Nitrous oxide (N<sub>2</sub>O)**
4. **Fluorinated gases** - this is a range of gases with very long names such as Hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride, and nitrogen trifluoride

## CONVERTING ALL GHGS TO A COMMON UNIT

CO<sub>2</sub> is considered as the most common greenhouse gas yet from a global heating perspective it is not the most powerful.

However, to allow for easier measurement and comparison of carbon footprints, all emissions are converted into 'Carbon Dioxide Equivalent' which is written as 'CO<sub>2</sub>e'. Therefore when people refer to a carbon footprint they are actually referring to the CO<sub>2</sub>e.

We break down all of the CO<sub>2</sub>e emissions made by a specific company into 3 areas called Scope 1,2 and 3 emissions. The following sections will go on to demystify these categories.

## UNDERSTANDING SCOPE 1 EMISSIONS

The key thing to remember about Scope 1 emissions is that they are 'direct emissions' i.e. they are caused by your organisation actually generating GHGs directly through your company activities.

For SMEs and smaller service-led organisations these tend to be very small. The most common ones are:

1. **Gas Supply**- usually for heating and a company kitchen
2. **Company vehicles**
3. **Air-conditioning leaks** - this is usually a very low figure and is only really needed when applying for formal certification of your emissions.

## UNDERSTANDING SCOPE 2 EMISSIONS

Scope 2 are considered as indirect emissions from purchased or acquired electricity, steam, heat and cooling. Unlike Scope 1 these emissions are 'indirect' because your company is not directly creating the greenhouse gases by burning fossil fuels.

Scope 2 emissions are considered the easiest to understand and to measure. It's just the emissions caused by the electricity that we purchase from our national grid.

## UNDERSTANDING SCOPE 3 EMISSIONS

In a nutshell, Scope 3 emissions encompass everything else that can have an impact on the environment that is not already covered in Scope 1 and 2.

The categories are sometimes simplified into the following:

- Purchased goods and services
- Business travel
- Employee commuting
- Waste disposal
- Use of sold products
- Transportation and distribution (up- and downstream)
- Investments
- Leased assets and franchises

Understanding Scope 3 emissions can feel complex and daunting when looking at all of the areas that can be measured.

But for 99% of businesses the majority of your Scope 3 emissions will come from the top three on this list.

## KEY BENEFITS OF REDUCING YOUR CARBON FOOTPRINT

Although there may be some financial implications associated with reducing your carbon footprint, the costs are coming down all the time and there are some significant benefits of behaving in this way as a business. These include:

- More sustainable, ethical businesses have been shown to outperform those that don't invest in these areas.
- Staff engagement for these initiatives is always very high. This can help with recruitment and retention.
- In the short-term you'll find that your customers are very engaged with these initiatives. It can be of real value when winning new business and customers and a great thing to report to existing customers. In the longer term, if you don't change the way your business operates, you'll get left behind by your competitors.
- Beyond just thinking about your own carbon footprint, you may find opportunities to develop more sustainable versions of your own products and services that can give you an edge in the market that you operate in.

## USEFUL LINKS

- The Difference Between Scope 1, 2 And 3 Emissions:  
<https://compareyourfootprint.com/difference-scope-1-2-3-emissions/>
- Understanding Your Scope 1, 2 And 3 Emissions (With Diagrams):  
<https://www.anthesisgroup.com/scope-1-2-3-emissions/>

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