

## Time to put your footprint down

We all want to make our lives and businesses more sustainable, but the sad fact is that there is so much ignorance around topics such as greenhouse gases and global warming. This point was highlighted when I recently filled in the gaps of my own ignorance by attending a carbon footprint analysis course.

 By [Peter Townshend](#) 19 Dec 2013



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Carbon footprinting is one of the catch phrases that have emerged out of the "green" movement and most people probably think they have a fairly solid understanding of what it is. It's generally understood that the "footprint" part of the phrase is abstract, ie. you don't need a tape measure to measure it. But what many people don't know is that a carbon footprint is actually an abstract concept in pretty much every way and means something completely different to what they think it does.

The confusion lies in the name, which makes us think that our impact on the environment is measured solely in the amount of carbon (ie. carbon dioxide) that we emit. But a carbon footprint really has little to do with carbon, and is really not a footprint. A carbon footprint is actually a measurement of the total greenhouse gases produced directly and indirectly by a person, organisation, event or product.

### Greenhouse gas emissions

You'll quickly notice that carbon doesn't get a mention in the above definition - the key words are "greenhouse gas emissions". A carbon footprint is therefore, a greenhouse gas footprint. So why call it a carbon footprint? Well, carbon dioxide ( $\text{CO}_2$ ) is one of the six Kyoto Protocol greenhouse gases. The others are Methane ( $\text{CH}_4$ ), Nitrous oxide ( $\text{N}_2\text{O}$ ), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs) and Sulphur hexafluoride ( $\text{SF}_6$ ).

In order for us to measure our impact on the environment, based on our greenhouse gas emissions (GHG) and to get a single comparable figure, we convert all GHG emissions to carbon dioxide. A carbon footprint therefore measures tonnes of emissions as a carbon dioxide equivalent ( $\text{CO}_2\text{e}$ ).

Carbon dioxide equivalency is therefore the equivalent amount of  $\text{CO}_2$  that would have the same global warming potential (GWP) over a specific period as the emissions of another greenhouse gas.

So, what is a global warming potential? A global warming potential is simply a relative measure of how much heat a greenhouse gas traps in the atmosphere. The GWP is what allows us to convert the possible effect of a gas on the atmosphere to carbon dioxide. It compares the amount of heat trapped by a certain mass of the gas in question to the amount of heat trapped by a similar mass of carbon dioxide.

## Impossible to accurately calculate

Although we may have now defined a carbon footprint, accurately calculating one is very close to impossible due to the large amounts of data required and the subjectivity about what to include or not. Although there are numerous guidelines and conventions, such as the Intergovernmental Panel on Climate Change (IPCC) the reality is that it's impossible to completely track the entire spectrum of emissions of a company's activities or the lifecycle of a product.

Thankfully, however, unless you're using a carbon footprint as a benchmark to compare your emissions to other companies, you really don't need to do this. Instead you should clearly define what you're going to include in your footprint, and then actively work towards implementing an effective environmental management plan and lowering it. By tracking your emission of greenhouse gases and executing reduction plans, you can ensure that you're minimising your company's impact and reaping all the significant benefits that come with running a sustainable operation.

So while carbon footprinting is rolling off the tongue as regularly as the global temperature is rising, the reality is that it can be an effective tool - if people take the time to understand it. Carbon footprinting can help us control and reduce our own emissions and offers us a guideline to measure one aspect of our impact on the environment. We should therefore all be taking out our abstract measuring tapes.

### ABOUT PETER TOWNSHEND

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