

Softwire

Prepared by

 **Supercritical**

2022 Carbon Footprint Report.

Overview

The climate crisis is the single biggest threat to humanity. As a forward-thinking company, Softwire recognises this. You've partnered with Supercritical to measure, reduce, and offset your emissions.

The first step is to understand your current impact. We've calculated **Softwire's carbon footprint for 01/01/2022-12/31/2022.**



Total tonnes CO₂ emitted

That's the equivalent of powering 254 homes [for a whole year](#)

20%

of emissions were created from Business travel

Emissions associated with Softwire's Business travel generated 159.1 tonnes of CO₂e emissions.

2.34 t CO₂e

per employee

LOWER

Your total footprint equates to 2.34 tonnes CO₂e per employee over 2022. The average footprint for a person in the UK is 12.7 tonnes per year, and the average footprint of an employee in a tech company is ~3.5–5.5 tonnes.

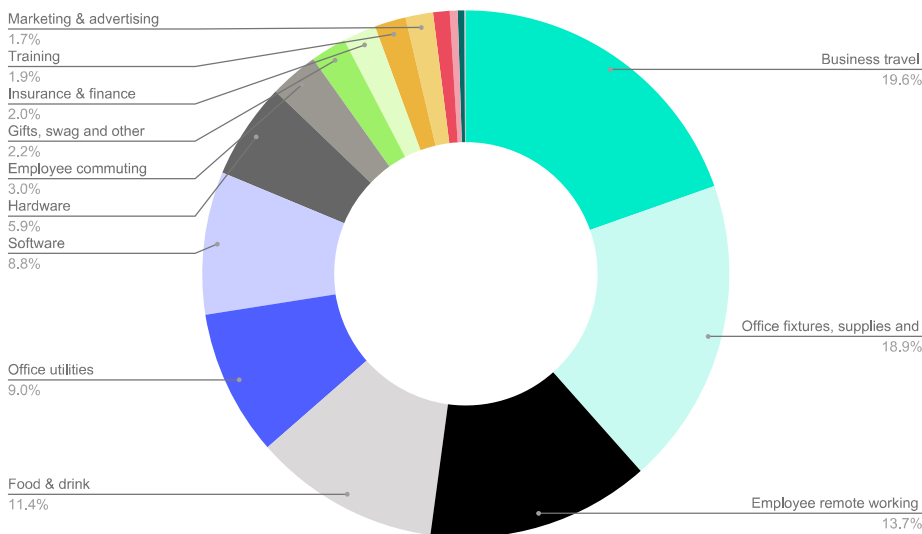
0.02

GHG intensity ratio

ABOUT

The ratio between your footprint and revenue in 2022. This is an industry standard way to normalise your footprint so you can track progress over time.

Emissions breakdown



(See Appendix A for data and categorisation by scope)

GHG protocol breakdown by scope

Scope	Description	t CO ₂ e
Scope 1	Direct emission from fuel combustion in own buildings and vehicles	0
Scope 2*	Emissions from electricity and heating use in control of the company	31
Scope 3	Emissions from the corporate value chain	781

* Market-based

Reporting period: 01/01/2022-12/31/2022

Emission boundary: Company operations and supply chain; Financial control approach.

Notes on scopes:

Location based Scope 2 emissions = 92.32 tonnes CO₂e

Our methodology

Supercritical's methodology is aligned with the [GHG Protocol standard](#), the standard developed by the World Resources Institute (WRI), and used by governments & cities all over the world as well as over 92% of Fortune 500 companies.

Base year footprint

We begin by calculating a base year footprint; the total CO_{2e} emissions released as part of a company's activities over the period of a specified year. Companies choose the base year as the earliest whole year for which they have reliable data: for Softwire this is 2022. Calculating a base year footprint is necessary to set and track progress towards future emissions reduction goals. But since 2022 was a highly unusual year, you can expect many emissions categories to change going forward. We can use backcasting next year to help you understand which of the changes are due to your climate actions, and which are due to other background changes.

Emissions calculations

Most business activities don't have a direct measurement of the GHG emissions recorded for them. Instead, we use [emission conversion factors](#) to calculate the equivalent emissions created for activities. A number of governments & organisations create and maintain official GHG conversion factors, and the majority of emissions factors we've used to calculate Softwire's footprint have been provided by the [UK Government's Department for Business, Energy & Industrial Strategy](#) (BEIS) team.

For example, converting a 15km taxi ride into the amount of CO_{2e} emitted into the atmosphere, using the BEIS taxi km/kg CO_{2e} conversion factor (0.20369):

$$\text{GHG emissions} = \text{activity data} \times \text{emission conversion factor}$$
$$3.05 \text{ kg CO}_2\text{e} = 15 \times 0.20369$$

Our approach to emissions scope

We use a comprehensive and progressive approach to mapping emissions, aiming to capture the majority of emission sources in your sphere of influence. Emission sources such as home-working emissions are often overlooked. However, they present a huge opportunity for your positive influence!

Deeper dive: Business travel

Business travel is often a significant source of carbon emissions, especially flying.

Flights emissions calculation is based on an itemised flight list, from which distances and class are derived, and matched appropriate flight emission factors recommended by BEIS. We use emission factors that include radiative forcing (RF). We also include in calculation emissions that arise in production of the fuel, so called well-to-tank (WTT) emissions.

$$\text{Individual flight emissions (kg CO}_2\text{e)} =$$
$$\text{Distance between two airports} \times (\text{BEIS emission factor for air travel, distance and class specific (CO}_2\text{e/passenger km)} + \text{BEIS WTT factor (CO}_2\text{e/passenger km)})$$

$$\text{Total flight emissions} =$$
$$\text{Sum of all individual flights paid for in the footprint year}$$

Travel by train, taxi, car, bus and underground is calculated based on spend, converted to km based on cost of travel from literature, and multiplied with BEIS emission factors specific to each mode of transport. Again, we also include appropriate well-to-tank emissions.

$$\text{Train travel emissions} = \text{total spend on train tickets (£)} / \text{UK average price per passenger km from Rail Industry Finance (£/passenger km)} \times (\text{BEIS emission factor for train travel (CO}_2\text{e/passenger km)} + \text{BEIS WTT factor for mode of transport specified (CO}_2\text{e/passenger km)})$$

$$\text{Total land business travel emission} =$$
$$\text{sum of train, taxi, car, bus etc. emissions}$$

Hotel stays are based on spend and updated DEFRA 2014 accommodation emission factor.

Finally, air, land and accommodation emissions are summed together to form total business travel emissions.