

# PHI IMPACT CALCULATOR

## MAP THE CO<sub>2</sub> FOOTPRINT OF YOUR ORGANISATION AND PRODUCTS

The PHI Impact Calculator maps the environmental impact of all the material flows within your company. After all, you can only start making positive impact when you know what produces the biggest impact in your organization.

### WHY MAKE CO<sub>2</sub> ANALYSES?

Organizations emit a large amount of CO<sub>2</sub> with their business operations. The products or services they offer, traveling around the world and the energie consumption. But that's not all. Organizations have a lot more impact than they think. We call this the environmental impact of material flows. This is the CO<sub>2</sub> emission that is caused during the entire life cycle of a product (the extraction of raw materials, manufacture, transport, usage phase and processing after use). In order to provide organizations insight in the environmental impact of their business operations we have developed an instrument. With the help of carefully selected emission factors and the content of products and processes this instrument calculates the environmental impact of the organization. This tooling is written primarily from the perspective of the business operation of an organisation. However, it applies equally to other processes and products.

### FOR WHOM?

The PHI Impact Calculator is for every organization that wants to gain insight into its CO<sub>2</sub> footprint. Don't wait any longer and start today with the first step towards a positive impact!

### OUR CALCULATION METHOD

PHI Factory's Impact Calculator is built following guidelines of the GHG Protocol Corporate Accounting and Reporting Standard by the Greenhouse Gas Protocol Initiative, a multi-stakeholder partnership convened by the World Resources Institute (WRI), and the World Business Council for Sustainable Development (WBCSD).

As with financial accounting and reporting, our GHG accounting principles are intended to underpin and guide faithful, true, and fair account of a company's GHG emissions. PHI Impact Meter follows the GHG Accounting and Reporting Principles: Relevance, Completeness, Consistency, Completeness, Transparency, Accuracy.

For Scope 1 and 2 categories, as well as for transport category of Scope 3, GHG emissions factors are sourced from <https://www.co2emissiefactoren.nl/>. This list is updated every year by a broad panel of experts based on the most recent insights.

For GHG emissions factors of Scope 3, we use a mix of sources: we select emissions factors for components or materials from selected databases or scientific publications that use an LCA calculation methodology conducted according to the guidelines of ISO 14040/44 and EN 15804. Resource used and waste produced along the whole life cycle of the product (upstream, core and downstream processes) are taken into account.



**UNITY**  
1 office chair

**LIFESPAN**  
15 years

**MATERIALS & WEIGHT**  
Materials & weight 12kg plastics, 4kg steel, 3kg cardboard (packaging)

**KEY FIGURE GWP**  
49.2 kg CO<sub>2</sub>e per office chair

**CO<sub>2</sub>-EMISSION ANNUALLY**  
Unity / 15 years \* 49.2 kg CO<sub>2</sub>e





## RESULT

The result is an overall picture of the total CO<sub>2</sub> footprint of your organization and measures to lower the impact. It is also possible to include relevant ratio performance indicators or measure the performance against benchmarks.

## SUSTAINABLE POTENTIAL

We are also able to calculate the sustainable alternatives using five scenarios, like reusing materials, local partnerships, reduction targets, measures for life extension and treatment of the material flows after usage. This provides your organization a clear picture of the measures you can take to reduce your environmental impact.



## PRACTICAL INFORMATION

To successfully perform the CO<sub>2</sub> footprint calculation, collecting complete and accurate information is of great importance. Given that this is a time-consuming activity, we want to support your organization as much as possible. This means that if possible, PHI Factory will collect the required data itself. We will provide the organization with an overview of the required data. Quite often we need to approach suppliers and their chain partners for data collection.

We start the assignment with a session to determine the scope and make an inventory of the way in which we will collect the data.



### PHI FACTORY

The PHI Impact Calculator is a product of PHI Factory. Our goal is to accelerate businesses towards a circular economy together.

### MORE?

If you have any questions about the PHI Impact Calculator, please contact us:

T: +31 (0)180 45 34 32

E: [info@phifactory.com](mailto:info@phifactory.com)

[www.phifactory.com](http://www.phifactory.com)