

OpenCO2.net carbon footprint label

OpenCO2.net carbon footprint label is a voluntary ecolabel managed by OpenCO2net Oy. The label can be granted to organizations or products whose carbon footprint has been defined or verified through OpenCO2.net.

This document defines the conditions that an organization shall meet in order to receive the label and to be able to use it in its communication.

OpenCO2net Oy

OpenCO2net is an independent company specialized in the development of sustainable and climate-friendly business and measuring carbon footprint. OpenCO2net is a Finnish company founded in 2016.

The aim of the company is to help organizations to mitigate climate change and to develop new climate-friendly business. In order to achieve this, reliable carbon footprint and carbon handprint data is needed.

OpenCO2net develops and maintains OpenCO2.net carbon footprint platform in order to provide its customers reliable tools for carbon footprint calculation and monitoring.

OpenCO2net uses science-based methods and applies the world's most used emission calculation standards.

OpenCO2.net carbon footprint platform

OpenCO2.net is a browser-based service designed to help the climate work of different type of organizations. The service is linked to the organization's strategy and climate goals. For managing its climate work, an organization should identify the climate impact of its operations, set climate targets, plan practical emission reduction measures, and monitor its emissions.

The OpenCO2.net service can be used to define the carbon footprint of organizations, products, and services.

The organization-specific service can be used to:

- define the organization's carbon footprint in accordance with GHG Protocol standards
- monitor the organization's emissions, for example on annual or monthly basis
- calculate the emission reduction potential of the different emission reduction measures
- examine different scenarios on how to achieve different goals, such as Science Based Target and/or carbon neutrality target.

The product-specific service can be used to:

- define the carbon footprint of the product or service in accordance with the ISO 14067 standard
- design low-carbon products by testing the impact of different raw material choices
- define the positive carbon footprint of a product or service

1. The purpose

The purpose of the OpenCO₂.net carbon footprint label is to show that a company's or product's carbon footprint has been reliably determined based on the carbon footprint standards.

The label allows a company to demonstrate to its customers and other stakeholders that the carbon footprint is based on reliable data and calculation methods and meets the requirements of the accounting standards.

There are three different OpenCO₂.net carbon footprint labels:

- "Carbon footprint calculated" indicates that the carbon footprint of the company, product or service, to which the label has been granted, has been defined
- "Carbon footprint" indicates the size of the carbon footprint of the company, product or service
- "Carbon-neutral" indicates that the carbon footprint of the company, product or service has been defined and reliably compensated

The labels can be granted to an individual organization or product.

The OpenCO₂.net carbon footprint applies to one category of environmental impact, i.e. greenhouse gas emissions.

2. Definitions

The following definitions are used in this document:

Carbon footprint

A carbon footprint depicts the climate burden caused by a certain configurable entity. For example, a carbon footprint can be measured for a company, municipality, investment, product or service.

The Climate burden is caused by releasing greenhouse gas emissions such as carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O) into the atmosphere. A carbon footprint is expressed in carbon dioxide equivalents (CO₂e), where the different climate warming effects of different greenhouse gases are taken into account.

When defining the carbon footprint, all direct and indirect emissions associated with a given entity during the life cycle shall be taken into account. For example, in the case of a company or municipality, the carbon footprint can be defined per unit of time selected, such as a year.

The carbon footprint is expressed as the mass of the emitted emissions, depending on the situation, either in tons, kilograms or grams.

Carbon neutral

A carbon neutral company, product or service doesn't harm the climate. In practice, this means that the carbon footprint for a given entity is first defined and then reduced in ways that are applicable. Emissions that cannot be reduced by one's own actions are compensated by participating in emission reduction projects or by purchasing emission reduction units from the market. When compensating for emissions, it is important to ensure that emissions reductions are verified reliably.

Organization

Organization means a company or public sector organization, such as a municipality, association, or organization, including non-governmental organizations (NGOs).

Product

Product means a good or service offered to a customer.

3. Requirement for compliance with the standards

The OpenCO2.net carbon footprint label may be granted to organizations or products whose carbon footprint has been determined in accordance with the requirements of one of the following carbon footprint standards:

Organization's carbon footprint:

- GHG Protocol Accounting and Reporting Standard
- ISO 14064 – 1 Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and

Product carbon footprint:

- Greenhouse Gas Protocol Product Life Cycle Accounting and Reporting Standard
- ISO 14 067 Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification
- PAS 2050 Specification for the assessment of the life cycle greenhouse gas emissions of goods and services

Carbon neutrality:

- PAS 2060 Carbon Neutrality

When determining the carbon footprint, it shall be clearly expressed on which standard the carbon footprint measurement is based on. The determination of the carbon footprint should be based on an up-to-date standard.

The list of acceptable standards presented in this document can be updated further on.

4. Principles and phases

The carbon footprint should be defined by following a science-based approach and considering the life-cycle perspective.

Following principles apply when defining the carbon footprint:

- Relevance: the calculation methods and input data used are appropriate for determining the carbon footprint of the entity in question
- Completeness: account for and report on all significant GHG emission sources and activities within the set inventory boundary

- Consistency: assumptions, calculation methods and data sources are used systematically and same way throughout the calculation (this also applies to calculations made in different years)
- Accuracy: the results of the carbon footprint calculation are presented truthfully and uncertainties are reduced as far as practicable
- Transparency: any relevant assumptions, accounting and calculation methodologies and data sources used are documented, so that the calculation results can be verified by third party.

Defining the carbon footprint shall be based on the requirements of the standards set out in the section 3 of this document. Regardless of the standards used, defining carbon footprint should include at least the following steps:

- The purpose of defining the carbon footprint (Scope)
- The unit of the carbon footprint (e.g. ton/year, g/pc, kg/ton)
- Setting the inventory boundary
- Selecting the time period / base year for the activity data used
- Assumptions made in the carbon footprint measurement
- Identification of greenhouse gas emissions and emission sources that are included in the measurement
- Selecting calculation methodologies and tools
- Selecting the allocation methods used in the measurement
- Collecting the activity data and selecting the emission factors
- Assessment of the reliability of the activity data
- Inventory of greenhouse gas emissions
- Assessing the quality and coverage of emission calculation, including uncertainties and sensitivity analysis
- Addressing potential biogenic emissions, carbon sinks and/or land use changes in the measurement

The results of the carbon footprint measurement are required to be reported so transparently that a third party is able to verify the results.

5. Requirements for accounting organization's carbon footprint

The carbon footprint measurement shall cover Scope 1 and Scope 2 completely. Scope 3 shall cover all the emissions considered significant. If the data required to calculate the emissions of a Scope 3 emission category is not available or would require significant resources to obtain the data, it may be excluded from the review.

In all phases emissions shall be accounted by using primary data owned and controlled by the organization, including significant life cycle phases. If using primary data is not possible, other emission databases, such as EcoInvent, CO2data, Lipasto and OpenCO2.net can be used.

The error margin of the calculation has to be obtained below 5 %.

6. Requirements for product's carbon footprint accounting

The product's carbon footprint shall cover all stages of life cycle, either cradle-to-gate or cradle-to-grave. Cradle-to-gate is used in business-to-business (B2B) and cradle-to-grave for consumer or end-user products.

In all phases emissions should be accounted by using primary data owned and controlled by the organization, including significant life cycle phases. If using primary data is not possible, other emission databases, such as EcoInvent, CO2data, Lipasto and OpenCO2.net can be used.

If the product group of the product has so called product category rule (PCR), it has to be taken into account where possible.

Insignificant material and energy streams may be excluded when it is justified. Streams that do not affect the accounting more than 1 % are considered insignificant. The streams that are considered insignificant may not exceed 5 % when summed altogether.

7. Requirements for carbon footprint reduction

In order to renew its label for the following period, an organization should be able to demonstrate that it has a plan how to reduce its or its product's carbon footprint continuously.

When comparing two carbon footprints, new and old, the same inventory boundary shall be used.

Emission compensation is not accepted as a carbon footprint reduction measure.

8. Requirements for carbon neutrality

In order for a company or its product to be carbon neutral, the following steps shall be taken:

- Carbon footprint accounting based on one of the standards described in the section 3
- Implementation of emission reduction measures
- Compensating emissions by using reliable carbon offsets
- Develop and document the carbon footprint management plan: setting targets, monitor emissions and ensure that the quantity of emissions to be offset is reduced on an annual basis

Reliable emission reduction units shall meet the following criteria:

- Emission reduction shall be real, i.e. the amount of emissions in the atmosphere shall be reduced
- Emission reductions shall be permanent (this requirement is particularly emphasized in land use and land use change projects)
- Emission reduction shall be additional. This relates to whether the project has resulted in emission reductions or removals in addition to what would have happened in the absence of the project
- Emission reductions shall be measurable and verifiable by third-party
- Emission reductions can only be used once to avoid double counting

9. Communication

The organization shall not make misleading environmental claims. Instead it has to be able to demonstrate the accuracy of the environmental claims through calculations or other evidence.

The OpenCO2.net carbon footprint label is based on scientific approach and standard based calculation method. Therefore supporting communication with the OpenCO2.net label enhances the confidence and reliability on the taken environmental action.

10. Carbon footprint labels

Carbon footprint calculated

The carbon footprint calculated label indicates the name of the company or product for which the carbon footprint has been calculated. The label does not indicate the size of the carbon footprint. The label indicates the year of carbon footprint calculation. When using the label the organization shall report the used inventory boundary and assumption made in the calculation.



Carbon footprint

The carbon footprint label indicates the size of the company's or product's carbon footprint. The label indicates the year of the carbon footprint calculation. When using the label the organization shall report the name of the company or product and the used inventory boundary and assumptions made in the calculation.



Carbon neutral

The carbon neutral label indicates the name of the company or the product that meets the carbon neutrality requirements described in this document. The label can only be granted to a product whose carbon footprint calculation includes all organizational emission sources considered significant or a all stages of the product life cycle from cradle to grave. In addition, the organization should be able to demonstrate that it has implemented its own emission reduction measures before offsetting emissions.



11. Granting and usage

OpenCO2net Oy may grant the right to use the OpenCO2.net carbon footprint to an organization that is able to demonstrate, based on reliable and comprehensive documentation, that the carbon footprint has been calculated as required in this document.

The label can be granted if one or more of the following conditions are met:

- 1) If the organization has defined its organizational carbon footprint or product footprint by using OpenCO2.net carbon footprint platform and OpenCO2net Oy or third-party approved by OpenCO2net Oy has verified the results of the calculation.
- 2) If OpenCO2net Oy has defined the organizational carbon footprint or product footprint by using OpenCO2.net carbon footprint platform and the result have been verified by organization's specialists (internal evaluation) or the result has been verified by a third party considered reliable.
- 3) If OpenCO2.net's partner organization has defined the organizational carbon footprint or product footprint by using OpenCO2.net carbon footprint platform and the result have been verified by organization's specialists (internal evaluation) or the result has been verified by a third party considered reliable.
- 4) If a third party has defined the organizations carbon footprint or product footprint and OpenCO2net Oy or another third party considered reliable has verified the calculation.

The label is granted for a certain period of time and can be used for a maximum of 24 months after the year on the label has ended. The label can be granted for a new period if the organization is committed to reducing its carbon footprint in accordance with the principles of continuous improvement.

The organization has the right to use the label publicly in its internal and external communications, such as brochures, product and packaging, in accordance with these terms. An organization can not compare its organizational or product's carbon footprint with another organization or product, unless it has been authorized to make such a comparison and the carbon footprint has been defined using the same principles and using the same inventory boundary.

If the customer requests, the organization should present the principles of the carbon footprint calculation, the inventory boundary used in the calculation, and the assumptions made in the calculation. It is recommended that this information is presented when using the label. OpenCO2net Oy can attach the label as a part of certificate which presents detailed background information on the calculation, or attach more detailed information on emission sources that can be presented e.g. on a website.

It is strictly prohibited to edit the label.

12. Fees

The usage fees of the label are based on the actual costs of determining the carbon footprint or critically evaluating the carbon footprint calculation.

Standards used as a source:

The Greenhouse Gas Protocol - Corporate Accounting and Reporting Standard, Revised Edition, WRI & WBCSD

The Greenhouse Gas Protocol - Product Life Cycle Accounting and Reporting Standard, WRI & WBCSD

ISO 14025:2010 Environmental labels and declarations. Type III environmental declarations. Principles and procedures

ISO 14064-1:2018 Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals

ISO 14064-3:2019 Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements

ISO 14065:2020 General principles and requirements for bodies validating and verifying environmental information

ISO/TS 14067:2018 Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification and communication

PAS 2050:2011 Specification for the assessment of the life cycle greenhouse gas emissions of goods and services
PAS 2060: , Carbon Neutrality

PAS 2060:2014 Specification for the demonstration of carbon neutrality