



BSI Standards Publication

**Greenhouse gases — Carbon
footprint of products —
Requirements and guidelines
for quantification and
communication**

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National foreword

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**Greenhouse gases — Carbon footprint
of products — Requirements and
guidelines for quantification and
communication**

*Gaz à effet de serre — Empreinte carbone des produits — Exigences
et lignes directrices pour la quantification et la communication*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

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The committee responsible for this document is Technical Committee ISO/TC 207, *Environmental management*, Subcommittee SC 7, *Greenhouse gas management and related activities*.

Introduction

Climate change arising from anthropogenic activity has been identified as one of the greatest challenges facing countries, governments, business and individuals, with major implications for both human and natural systems. In response, international, regional, national and local initiatives are being developed and implemented to limit greenhouse gas (GHG) concentrations in the Earth's atmosphere. Such GHG initiatives rely on the assessment, monitoring, reporting and verification of GHG emissions and/or removals.

GHGs are emitted and removed throughout the life cycle of a product (i.e. cradle-to-grave) from raw material acquisition through production, use and end-of-life treatment.

This Technical Specification¹⁾ details principles, requirements and guidelines for the quantification and communication of the carbon footprint of products (CFPs), including both goods and services, based on GHG emissions and removals over the life cycle of a product. Requirements and guidelines for the quantification and communication of a partial carbon footprint of products (partial CFP) are also provided. The communication of the CFP to the intended audience is based on a CFP study report that provides an accurate, relevant and fair representation of the CFP.

This Technical Specification is based on existing International Standards ISO 14020, ISO 14024, ISO 14025, ISO 14040 and ISO 14044 and aims to set specific requirements for the quantification and communication of a CFP, including additional requirements where the CFP information is intended to be publicly available.

This Technical Specification is expected to benefit organizations, governments, communities and other interested parties by providing clarity and consistency in quantifying and communicating CFPs. Specifically, using life cycle assessment according to this Technical Specification with climate change as the single impact category may offer benefits through:

- providing requirements for the methods to be adopted in assessing the CFP;
- facilitating the tracking of performance in reducing GHG emissions;
- assisting in the creation of efficient and consistent procedures to provide CFP information to interested parties;
- providing a better understanding of the CFP such that opportunities for GHG reductions may be identified;
- providing CFP information to encourage changes in consumer behaviour which could contribute to reductions in GHG emissions through improved purchasing, use and end-of-life decisions;
- providing correct and consistent communication of CFPs which supports comparability of products in a free and open market;
- enhancing the credibility, consistency and transparency of the quantification, reporting and communication of the CFP;
- facilitating the evaluation of alternative product design and sourcing options, production and manufacturing methods, raw material choices, recycling and other end-of-life processes;
- facilitating the development and implementation of GHG management strategies and plans across product life cycles as well as the detection of additional efficiencies in the supply chain;

CFPs prepared in accordance with this Technical Specification contribute to the objectives of GHG related policies and/or regimes.

1) As the subject on quantification and communication of a carbon footprint of products is still under development, the agreement to publish an International Standard could not be reached and ISO/TC 207/SC 7 decided that the publication of a Technical Specification (according to the ISO/IEC Directives, Part 1) is appropriate.

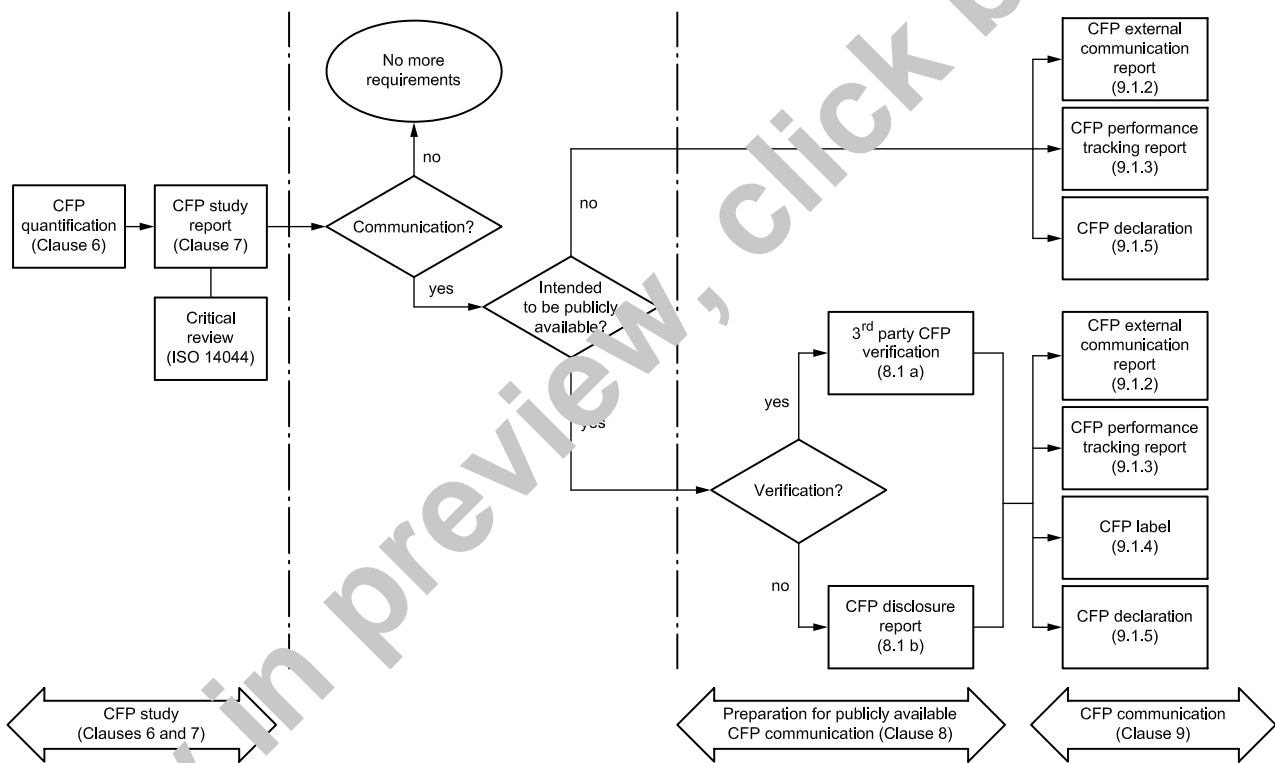
An organization may wish to publicly communicate a CFP for many reasons which may include:

- providing information to consumers and others for decision-making purposes;
- enhancing climate change awareness and consumer engagement on environmental issues;
- supporting an organization’s commitment to tackling climate change;
- supporting implementation of policies on climate change management.

The requirements for communication provided in this Technical Specification vary with the option chosen for the CFP communication and the intended target group.

Figure 1 shows how CFP quantification is linked to CFP communication in this Technical Specification. The specific linkage depends on the choice of different options with respect to communication and verification. The structure of this Technical Specification corresponds to the flow as presented in Figure 1.

This Technical Specification addresses the single impact category of climate change. It does not assess any social or economic aspects or impacts or any other potential environmental aspects and related impacts arising from the life cycle of a product. Therefore a CFP assessed in accordance with this Technical Specification does not provide an indicator of any social or economic impact or the overall environmental impact of a product. Information on limitations of the CFPs based on this Technical Specification is included in Clause 4 and Annex B.



NOTE For more information on CFP communication options, see Figure 3.

Figure 1 — Linkage of CFP quantification and CFP communication

Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification and communication

1 Scope

This Technical Specification specifies principles, requirements and guidelines for the quantification and communication of the carbon footprint of a product (CFP), based on International Standard on life cycle assessment (ISO 14040 and ISO 14044) for quantification and on environmental labels and declarations (ISO 14020, ISO 14024 and ISO 14025) for communication.

Requirements and guidelines for the quantification and communication of a partial carbon footprint of a product (partial CFP) are also provided.

This Technical Specification is applicable to CFP studies and different options for CFP communication based on the results of such studies.

Where the results of a CFP study are reported according to this Technical Specification, procedures are provided to support both transparency and credibility and also to allow for informed choices.

This Technical Specification also provides for the development of CFP-product category rules (CFP-PCR), or the adoption of product category rules (PCR) that have been developed in accordance with ISO 14025 and that are consistent with this Technical Specification.

This Technical Specification addresses only one impact category: climate change.

Offsetting is outside of the scope of this Technical Specification.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 14025:2006, *Environmental labels and declarations — Type III environmental declarations — Principles and procedures*

ISO 14044:2006, *Environmental management — Life cycle assessment — Requirements and guidelines*

ISO 14050, *Environmental management — Vocabulary*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 14050²⁾ and the following apply.

2) Terms and definitions in ISO 14050 are available via the ISO Online Browsing Platform (<https://www.iso.org/obp/ui/>).