

### SLOVENSKI STANDARD SIST EN ISO 14067:2019

01-februar-2019

Nadomešča:

**SIST-TS CEN ISO/TS 14067:2014** 

### Toplogredni plini - Ogljični odtis izdelkov - Zahteve in smernice za merjenje (ISO 14067:2018)

Greenhouse gases - Carbon footprint of products - Requirements and guidelines for quantification (ISO 14067:2018)

Treibhausgase - Carbon Footprint von Produkten - Anforderungen an und Leitlinien für Quantifizierung (ISO 14067:2018) (Standards.iteh.ai)

Gaz à effet de serre - Empreinte carbone des produits - Exigences et lignes directrices pour la quantification (ISO 14067:2018) g/standards/sist/e0e5781f-e9d0-40a7-9133-6c571ba932e9/sist-en-iso-14067-2019

Ta slovenski standard je istoveten z: EN ISO 14067:2018

#### ICS:

13.020.40 Onesnaževanje, nadzor nad Pollution, pollution control

onesnaževanjem in and conservation

ohranjanje

13.020.60 Življenjski ciklusi izdelkov Product life-cycles

SIST EN ISO 14067:2019 en

## iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 14067:2019

### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

**EN ISO 14067** 

September 2018

ICS 13.020.40

Supersedes CEN ISO/TS 14067:2014

**English Version** 

# Greenhouse gases - Carbon footprint of products - Requirements and guidelines for quantification (ISO 14067:2018)

Gaz à effet de serre - Empreinte carbone des produits -Exigences et lignes directrices pour la quantification (ISO 14067:2018) Treibhausgase - Carbon Footprint von Produkten -Anforderungen an und Leitlinien für Quantifizierung (ISO 14067:2018)

This European Standard was approved by CEN on 25 July 2018.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

### EN ISO 14067:2018 (E)

Contents	Page	9
European foreword		₹

## iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN ISO 14067:2019</u> https://standards.iteh.ai/catalog/standards/sist/e0e5781f-e9d0-40a7-9133-6c571ba932e9/sist-en-iso-14067-2019

EN ISO 14067:2018 (E)

### **European foreword**

This document (EN ISO 14067:2018) has been prepared by Technical Committee ISO/TC 207 "Environmental management" in collaboration with Technical Committee CEN/SS S26 "Environmental management" the secretariat of which is held by CCMC.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2019, and conflicting national standards shall be withdrawn at the latest by March 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes CEN ISO/TS 14067:2014.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### iTeh STANDARD PREVIEW Endorsement notice (standards.iteh.ai)

The text of ISO 14067:2018 has been approved by CEN as EN ISO 14067:2018 without any modification.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 14067:2019

## INTERNATIONAL STANDARD

ISO 14067

First edition 2018-08

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

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

## iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN ISO 14067:2019</u> https://standards.iteh.ai/catalog/standards/sist/e0e5781f-e9d0-40a7-9133-6c571ba932e9/sist-en-iso-14067-2019



Reference number ISO 14067:2018(E)

ISO 14067:2018(E)

## iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN ISO 14067:2019</u> https://standards.iteh.ai/catalog/standards/sist/e0e5781f-e9d0-40a7-9133-6c571ba932e9/sist-en-iso-14067-2019



### **COPYRIGHT PROTECTED DOCUMENT**

#### © ISO 2018

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Fax: +41 22 749 09 47 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

Co	Contents		Page	
For	eword		v	
Intr	oductio	n	vi	
1	Scop	e	1	
2	-	native references		
3		Terms, definitions and abbreviated terms		
3	3.1	Terms and definitions		
		3.1.1 Quantification of the carbon footprint of a product		
		3.1.2 Greenhouse gases	4	
		3.1.3 Products, product systems and processes		
		3.1.4 Life cycle assessment		
		3.1.5 Organizations		
		3.1.6 Data and data quality		
	3.2	3.1.7 Biogenic material and land use Abbreviated terms		
4		ication		
5		ciples		
	5.1	General		
	5.2	Life cycle perspective	11	
	5.3	Relative approach and functional or declared unit	12	
	5.4 5.5	Priority of scientific approach	12 12	
	5.6	Priority of scientific approach research ai	12	
	5.7	Completeness	12	
	5.8	Consistency SIST EN ISO 14067:2019	12	
	5.9	Coherence standards.iteh.ai/catalog/standards/sist/e0e5781f-e9d0-40a7-9133-	12	
	5.10	Completeness Consistency Coherence SIST EN ISO 14067:2019 Coherence Standards.iteh.ai/catalog/standards/sist/e0e5781f-e9d0-40a7-9133- Accuracy 6c571ba932e9/sist-en-iso-14067-2019	12	
	5.11	Transparency	13	
	5.12	Avoidance of double-counting	13	
6	Meth	odology for quantification of the CFP and partial CFP	13	
	6.1	General		
	6.2	Use of CFP-PCR		
	6.3	Goal and scope definition		
		6.3.1 Goal of a CFP study		
		6.3.3 Functional or declared unit		
		6.3.4 System boundary		
		6.3.5 Data and data quality		
		6.3.6 Time boundary for data	17	
		6.3.7 Use stage and use profile	18	
		6.3.8 End-of-life stage		
	6.4	Life cycle inventory analysis for the CFP		
		6.4.1 General		
		6.4.2 Data collection		
		6.4.3 Validation of data		
		6.4.5 Refining the system boundary		
		6.4.6 Allocation		
		6.4.7 CFP performance tracking		
		6.4.8 Assessing the effect of the timing of GHG emissions and removals		
		6.4.9 Treatment of specific GHG emissions and removals	23	
	6.5	Impact assessment for CFP or partial CFP		
		651 Ceneral	29	

### ISO 14067:2018(E)

		6.5.2 Impact assessment of biogenic carbon	29
	6.6	Interpretation of CFP or partial CFP	29
7	CFP s	study report	30
	7.1	General	30
	7.2	GHG values in the CFP study report	30
	7.3	Required information for the CFP study report	31
	7.4	Optional information for the CFP study report	32
8	Critic	cal review	32
Anne	<b>x A</b> (no	ormative) Limitations of the CFP	33
Anne	<b>x B</b> (no	ormative) Comparison based on the CFP of different products	35
Anne	<b>x C</b> (no	rmative) The CFP systematic approach	36
Anne	<b>x D</b> (inf	formative) Possible procedures for the treatment of recycling in CFP studies	38
Anne		formative) Guidance on quantifying GHG emissions and removals for	
	agric	cultural and forestry products	42
Biblic	graph	ıy	45

## iTeh STANDARD PREVIEW (standards.iteh.ai)

### 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 (see <a href="www.iso.org/directives">www.iso.org/directives</a>).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see <a href="https://www.iso.org/patents">www.iso.org/patents</a>).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information/about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see <a href="https://www.iso.org/iso/foreword.html">www.iso.org/iso/foreword.html</a>. (Standards.iteh.ai)

This document was prepared by Technical Committee ISO/TC 207, Environmental management, Subcommittee SC 7, Greenhouse gas management and related activities.

This first edition cancels and replaces 180/TS 14067:2013, which has been technically revised. It constitutes a reduction in scope as follows:

- principles, requirements and guidance on communication of the carbon footprint of a product (CFP) and the partial CFP are now covered in ISO 14026;
- principles, requirements and guidance on verification are now covered in ISO 14064-3;
- principles, requirements and guidance on PCR are now covered in ISO/TS 14027;
- requirements for the treatment of biogenic carbon and electricity have been revised and clarified;
- the definitions have been aligned within the ISO 14064 series for ease of interpretation.

This document is the generic standard for the quantification of the carbon footprint of products.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at <a href="https://www.iso.org/members.html">www.iso.org/members.html</a>.

ISO 14067:2018(E)

### Introduction

Climate change arising from anthropogenic activity has been identified as one of the greatest challenges facing the world and will continue to affect business and citizens over future decades.

Climate change has implications for both human and natural systems and could lead to significant impacts on resource availability, economic activity and human wellbeing. In response, international, regional, national and local initiatives are being developed and implemented by public and private sectors to mitigate greenhouse gas (GHG) concentrations in the Earth's atmosphere as well as to facilitate adaptation to climate change.

There is a need for an effective and progressive response to the urgent threat of climate change on the basis of the best available scientific knowledge. ISO produces documents that support the transformation of scientific knowledge into tools that will help address climate change.

GHG initiatives on mitigation rely on the quantification, monitoring, reporting and verification of GHG emissions and/or removals.

The ISO 14060 family provides clarity and consistency for quantifying, monitoring, reporting and validating or verifying GHG emissions and removals to support sustainable development through a low-carbon economy. It also benefits organizations, project proponents and stakeholders worldwide by providing clarity and consistency on quantifying, monitoring, reporting, and validating or verifying GHG emissions and removals. Specifically, the use of the ISO 14060 family:

- enhances the environmental integrity of GHG quantification;
- enhances the credibility, consistency, and transparency of GHG quantification, monitoring, reporting, validation and verification, tandards. Item. al
- facilitates the development and implementation of GHG management strategies and plans;
- facilitates the development and implementation of mitigation actions through emission reductions or removal enhancements;
- facilitates the ability to track performance and progress in the reduction of GHG emissions and/or increase in GHG removals.

Applications of the ISO 14060 family include:

- corporate decisions, such as identifying GHG emission reduction opportunities and increasing profitability by reducing energy consumption;
- carbon risk management, such as the identification and management of risks and opportunities;
- voluntary initiatives, such as participation in voluntary GHG registries or sustainability reporting initiatives;
- GHG markets, such as the buying and selling of GHG allowances or credits;
- regulatory/government GHG programmes, such as credit for early action, agreements or national and local reporting initiatives.

ISO 14064-1 details principles and requirements for designing, developing, managing and reporting organization-level GHG inventories.

It includes requirements for determining GHG emission and removal boundaries, quantifying an organization's GHG emissions and removals, and identifying specific company actions or activities aimed at improving GHG management.

It also includes requirements and guidance on inventory quality management, reporting, internal auditing and the organization's responsibilities in verification activities.

ISO 14064-2 details principles and requirements for determining baselines and for the monitoring, quantifying and reporting of project emissions. It focuses on GHG projects or project-based activities specifically designed to reduce GHG emissions and/or enhance GHG removals. It provides the basis for GHG projects to be validated and verified.

ISO 14064-3 details requirements for verifying GHG statements related to GHG inventories, GHG projects, and carbon footprints of products. It describes the process for validation or verification, including validation or verification planning, assessment procedures, and the evaluation of organizational, project and product GHG statements.

ISO 14065 defines requirements for bodies that validate and verify GHG statements. Its requirements cover impartiality, competence, communication, validation and verification processes, appeals, complaints, and the management system of validation and verification bodies. It can be used as a basis for accreditation and other forms of recognition in relation to the impartiality, competence, and consistency of validation and verification bodies.

ISO 14066 specifies competence requirements for validation teams and verification teams. It includes principles and specifies competence requirements based on the tasks that validation teams or verification teams must be able to perform.

This document defines the principles, requirements and guidelines for the quantification of the carbon footprint of products. The aim of this document is to quantify GHG emissions associated with the life cycle stages of a product, beginning with resource extraction and raw material sourcing and extending through the production, use and end-of-life stages of the product.

ISO/TR 14069 assists users in the application of ISO 14064-1, providing guidelines and examples for improving transparency in the quantification of emissions and their reporting. It does not provide additional guidance to ISO 14064-1 and ards. iteh. ai

Figure 1 illustrates the relationship among the ISO 14060 family of GHG standards.

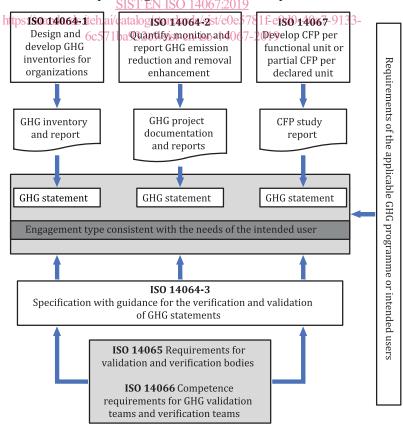


Figure 1 — Relationship among the ISO 14060 family of GHG standards

### ISO 14067:2018(E)

NOTE In this document, GHG statements are the CFP or the partial CFP.

GHGs can be emitted and removed throughout the life cycle of a product which includes acquisition of raw material, design, production, transportation/delivery, use and the end-of-life treatment. Quantification of the carbon footprint of a product (CFP) will assist in the understanding and action to increase GHG removals and reduce GHG emissions throughout the life cycle of a product. This document details principles, requirements and guidelines for the quantification of CFPs, i.e. goods and services, based on GHG emissions and removals over their life cycle. Requirements and guidelines for the quantification of a partial CFP are also provided. Communication related to the CFP or the partial CFP is covered in ISO 14026. The development of product category rules (PCR) is covered in ISO/TS 14027.

This document is based on principles, requirements and guidelines identified in existing International Standards on life cycle assessment (LCA), ISO 14040 and ISO 14044, and aims to set specific requirements for the quantification of a CFP and a partial CFP.

This document is expected to benefit organizations, governments, industry, service providers, communities and other interested parties by providing clarity and consistency in quantifying CFPs. Specifically, using LCA in accordance with this document, with climate change as the single impact category, can offer benefits through:

- avoiding burden-shifting from one stage of a product life cycle to another or between product life cycles;
- providing requirements for the quantification of the CFP;
- facilitating CFP performance tracking in reducing GHG emissions;
- providing a better understanding of the CFP such that potential opportunities for increases in GHG removals and reductions of GHG emissions might be identified;
- helping to promote a sustainable low carbon economy 67:2019
- enhancing the credibility, consistency and transparency of the quantification and reporting of the CFP;
- facilitating the evaluation of alternative product design and sourcing options, production and manufacturing methods, raw material choices, transportation, 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;
- preparing reliable CFP information.

NOTE In respect to the terminology of ISO 14026 regarding footprint communication, climate change is considered as an example of an "area of concern".

Figure 2 illustrates the connection between this document and standards outside the GHG management family of standards.

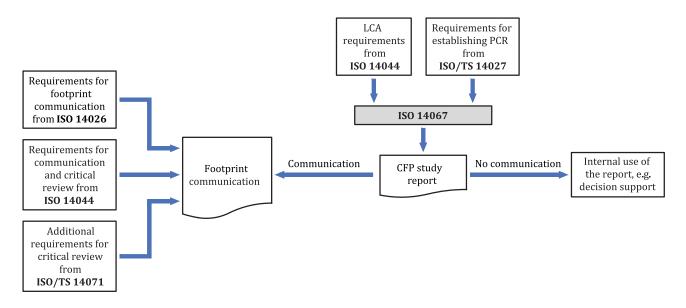


Figure 2 — Relationship between this document and standards beyond the GHG management family of standards

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

Limitations of CFPs based on this document are described in Annex A.

(standards.iteh.ai)

SIST EN ISO 14067:2019