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Interested committees:

Title: Draft BS ISO 14067 Carbon footprint of products # Requirements and guidelines for quantification and communication

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Introduction

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Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	(7)
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/ Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



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

Empreinte carbone des produits — Exigences et lignes directrices pour la quantification et la communication

ICS 13.020.40

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 14067 was prepared by 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 International Standard 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 International Standard is based on existing ISO standards ISO 14020, 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 International Standard is expected to benefit organizations, governments, communities and other interested parties by providing clarity and consistency for quantifying and communicating CFPs. Specifically, using life cycle assessment according to this International Standard 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 International Standard contribute to the objectives of GHG related policies, e.g. the UNFCCC.

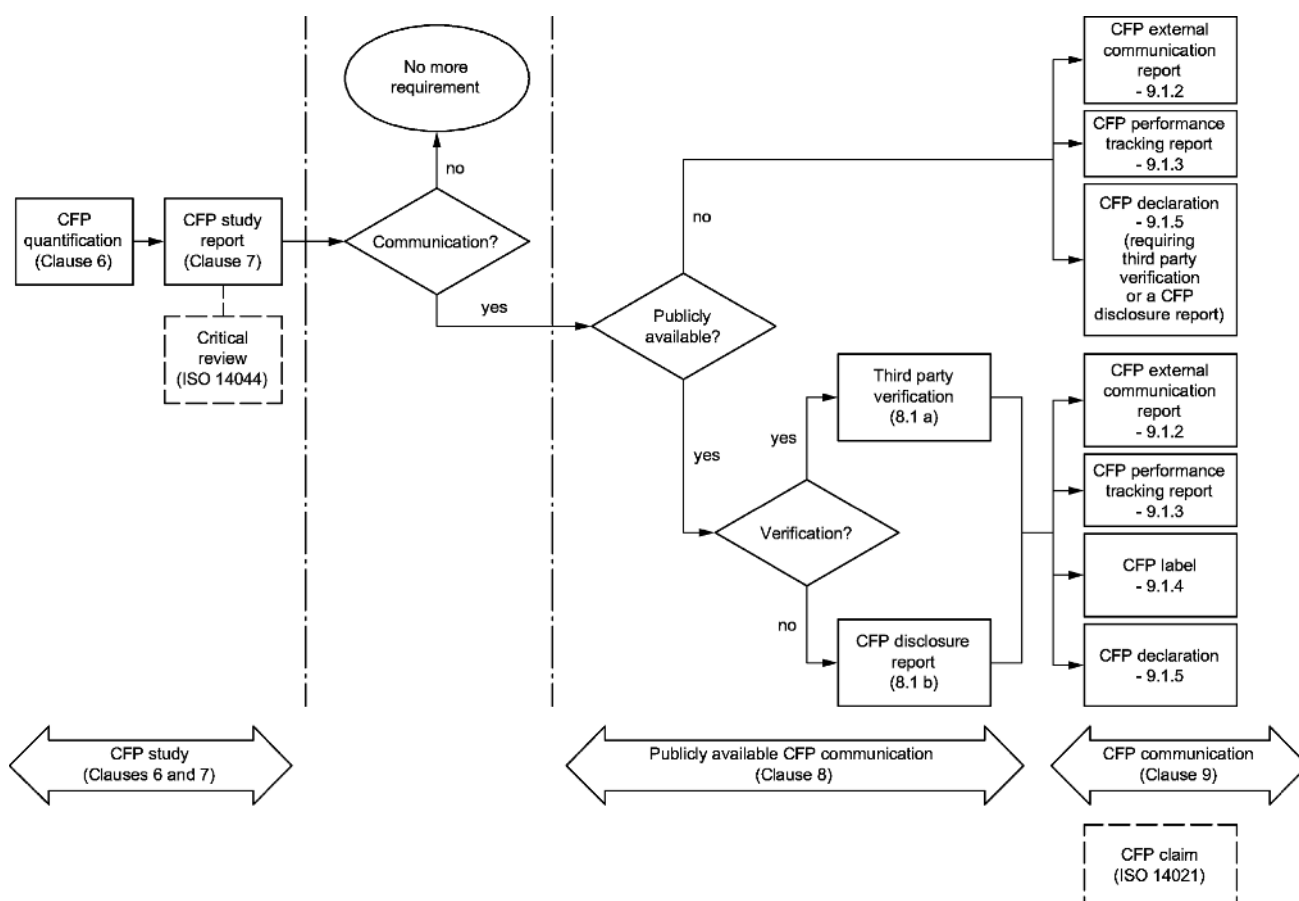
An organization may wish to publicly communicate a CFP for many reasons which may include:

- 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 International Standard 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 International Standard. The specific linkage depends on the choice of different options with respect to communication and verification. The structure of this International Standard corresponds to the flow as presented in Figure 1.

This International Standard 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 provision of a product. Therefore a CFP assessed in accordance with this International Standard 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 International Standard 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 International Standard specifies principles, requirements and guidelines for the quantification and communication of the carbon footprint of a product (CFP), based on International Standards on life cycle assessment (ISO 14040 and ISO 14044) and on environmental labels and declarations (ISO 14020, ISO 14024, ISO 14025).

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

This International Standard 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 International Standard, procedures are provided to support both transparency and credibility and also to allow for informed choices.

This International Standard 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 International Standard.

This International Standard addresses only one impact category, climate change.

Offsetting is outside of the scope of this International Standard.

2 Normative references

The following referenced documents are indispensable for the application of this document. 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*

3 Terms, definitions and abbreviations

For the purposes of this document, the terms and definitions given in ISO 14050 and the following apply.

NOTE Terms and definitions in ISO 14050 are available in the ISO Concept Database (<http://cdb.iso.org/>).

3.1 Terms and definitions

3.1.1 Terms relating to CFP quantification

3.1.1.1

carbon footprint of a product

CFP

sum of *greenhouse gas emissions* (3.1.3.5) and *removals* (3.1.3.6) in a *product system* (3.1.4.2), expressed as *CO₂ equivalent* (3.1.3.2) and based on a *life cycle assessment* (3.1.5.3) using the single impact category of climate change

Note 1 to entry: The CO₂ equivalent of a specific amount of a *greenhouse gas* (3.1.3.1) is calculated as the mass of a given greenhouse gas multiplied by its *global warming potential* (3.1.3.4).

Note 2 to entry: A list of greenhouse gases with their recognised global warming potentials is provided in Annex A.

Note 3 to entry: A CFP comprises a set of figures identifying specific GHG emissions and removals (see Table 1) that together quantify the CFP.

Note 4 to entry: Results of the quantification of the CFP are documented in the CFP study report (3.1.1.4) expressed in mass of CO₂e per functional unit (3.1.4.7).

3.1.1.2

partial CFP

sum of *greenhouse gas emissions* (3.1.3.5) and *removals* (3.1.3.6) of one or more selected *process(es)* (3.1.4.5) of a *product system* (3.1.4.2), expressed as *CO₂ equivalent* (3.1.3.2) and based on the relevant life cycle stages or processes

Note 1 to entry: The partial CFP is based on or compiled from specific processes or *information modules* (3.1.4.4) which are part of a product system and may form the basis for quantification of a *CFP* (3.1.1.1). More detailed information on information modules is given in ISO 14025:2006, 5.4.

3.1.1.3

CFP study

study that quantifies the CFP or partial CFP

3.1.1.4

CFP study report

report on a *CFP study* (3.1.1.3)

3.1.1.5

offsetting

mechanism for compensating for all or for a part of the *CFP* (3.1.1.1) through the prevention of the release of, reduction in, or removal of an amount of *greenhouse gas emissions* (3.1.3.5) in a *process* (3.1.4.5) outside the boundary of the *product system* (3.1.4.2)

EXAMPLE Investment in renewable energy technologies, energy efficiency measures; afforestation/reforestation are outside the boundaries of the CFP.

Note 1 to entry: Offsetting is not allowed in the CFP quantification, and communication of offsetting related to the CFP is outside of the scope of this International Standard.

[SOURCE: ISO 14021:1999 + Amd 1:2011, modified — revised the information in the original Note to be presented as an Example and added a new Note 1 to entry providing information on rules regarding offsetting.]

3.1.2 Terms relating to CFP communication

3.1.2.1

CFP communication programme

programme for the development and use of *CFP* (3.1.1.1) communication based on a set of operating rules

Note 1 to entry: The programme may be voluntary or mandatory, international, national or sub-national.

3.1.2.2

CFP programme operator

body or bodies that conduct a *CFP communication programme* (3.1.2.1)

Note 1 to entry: A CFP programme operator can be a company or a group of companies, industrial sector or trade association, public authorities or agencies, or an independent scientific body or other *organization* (3.1.6.1).

[SOURCE: ISO 14025:2006, 3.4, modified — specific references added to CFP in the preferred term, definition and Note to relate concept to CFP instead of a "type III environmental declaration programme".]

3.1.2.3

CFP disclosure report

report used for allowing publicly available communication without 3rd party verification

3.1.2.4

CFP external communication report

report based on the *CFP study report* (3.1.1.4) intended to be communicated externally

3.1.2.5

CFP performance tracking report

report comparing the *CFP* (3.1.1.1) of the same *product* of the same *organisation* (3.1.4.1) over time

3.1.2.6

CFP label

mark on a *product* (3.1.4.1) identifying its *CFP* (3.1.1.1) within a particular *product category* (3.1.4.10) according to the *CFP communication programme* (3.1.2.1) requirements

3.1.2.7

carbon footprint of a product declaration

CFP declaration

declaration of the *CFP* (3.1.1.1) made according to the *CFP-PCR* (3.1.4.12) or appropriate *Type III environmental declaration* (ISO 14025:2006, 3.2) according to the *PCR* (3.1.4.11)

3.1.3 Terms relating to greenhouse gases

3.1.3.1

greenhouse gas

GHG

gaseous constituent of the atmosphere, both natural and anthropogenic, that absorbs and emits radiation at specific wavelengths within the spectrum of infrared radiation emitted by the earth's surface, the atmosphere, and clouds

Note 1 to entry: A list of greenhouse gases with their recognised *global warming potentials* (3.1.3.4) is provided in Annex A.

Note 2 to entry: Water vapour and ozone are anthropogenic as well as natural greenhouse gases but are not included as recognised greenhouse gases due to difficulties, in most cases, in isolating the human-induced component of global warming attributable to their presence in the atmosphere.

[SOURCE: ISO 14064-1:2006, 2.1, modified — Notes 1 and 2 to entry have been added, original Note listing examples of GHGs was omitted.]

3.1.3.2

carbon dioxide equivalent**CO₂ equivalent****CO₂e**

unit for comparing the radiative forcing of a greenhouse gas to that of carbon dioxide Note 1 to entry: The quantity of carbon dioxide equivalent is calculated by multiplying the mass of a given greenhouse gas by its *global warming potential* (3.1.3.4).

Note 1 to entry: A list of GHGs with their recognised global warming potentials is provided in Annex A.

[SOURCE: ISO 14064-1:2006, 2.19, modified — Note 1 to entry has been reworded due to clarification, the reference in Note 2 to entry has been specified.]

3.1.3.3

carbon storage in a product

carbon removed from the atmosphere and stored as carbon in a *product* (3.1.4.1)

3.1.3.4

global warming potential**GWP**

characterization factor (ISO 14040:2006, 3.37) describing the radiative forcing impact of one mass-based unit of a given greenhouse gas relative to that of carbon dioxide over a given period of time

Note 1 to entry: A list of greenhouse gases with their recognised global warming potentials is provided in Annex A.

[SOURCE: ISO 14064-1:2006, 2.18, modified — Note 1 to entry has been added.]

3.1.3.5

greenhouse gas emission**GHG emission**

mass of a *greenhouse gas* (3.1.3.1) released to the atmosphere

[SOURCE: ISO 14064-1:2006, 2.5, modified — "over a specified time period" has been omitted because the time period for a CFP is determined by the life cycle of the product; the term "total" has been omitted because a CFP allows for the quantification of emissions relevant to footprint calculation.]

3.1.3.6

greenhouse gas removal**GHG removal**

mass of a *greenhouse gas* (3.1.3.1) removed from the atmosphere

[SOURCE: ISO 14064-1:2006, 2.6 modified — "over a specified time period" has been omitted because the time period for a CFP is determined by the life cycle of the product; the term "total" has been omitted because CFP allows for the quantification of removals relevant to footprint calculation.]

3.1.3.7

greenhouse gas emission factor**GHG emission factor**

mass of a *greenhouse gas* (3.1.3.1) emitted relative to an *input* (ISO 14040:2006, 3.21) or an *output* (ISO 14040:2006, 3.25) of a *unit process* (3.1.4.6) or a combination of unit processes

[SOURCE: ISO 14064-1: 2006, 2.7, modified — Definition is written specifically to relate only to GHG emissions relative to given sources and units of activity.]

3.1.3.8

greenhouse gas source**GHG source**

process (3.1.4.5) that releases a *greenhouse gas* (3.1.3.1) into the atmosphere

160 Note 1 to entry: The process can be natural or anthropogenic.

161 3.1.3.9

162 greenhouse gas sink

163 GHG sink

164 *process* (3.1.4.5) that removes a *greenhouse gas* (3.1.3.1) from the atmosphere

165 Note 1 to entry: The process can be natural or anthropogenic.

166 3.1.4 Terms relating to products, product systems and processes

167 3.1.4.1

168 product

169 any goods or service

170 Note 1 to entry: The product can be categorized as follows:

171 — service (e.g. transport, implementation of events, electricity);

172 — software (e.g. computer program);

173 — hardware (e.g. engine mechanical part);

174 — processed material (e.g. lubricant, ore, fuel);

175 — unprocessed material (e.g. agricultural produce).

176 Note 2 to entry: Services have tangible and intangible elements. Provision of a service can involve, for example, the
177 following:

178 — an activity performed on a customer-supplied tangible product (e.g. automobile to be repaired);

179 — an activity performed on a customer-supplied intangible product (e.g. the income statement needed
180 to prepare a tax return);

181 — the delivery of an intangible product (e.g. the delivery of information in the context of knowledge
182 transmission);

183 — the creation of ambience for the customer (e.g. in hotels and restaurants).

184 [SOURCE: ISO 14044:2006, 3.9, modified — in Note 1 to entry "dictionary" was deleted from the second
185 bullet, and the Note 3 to entry dealing with origin of the definition has been omitted.]

186 3.1.4.2

187 product system

188 collection of *unit processes* (3.1.4.6) with *elementary flows* (3.1.4.9) and *product flows* (ISO 14040:2006,
189 3.27), performing one or more defined functions and which models the *life cycle* (3.1.5.2) of a *product*
190 (3.1.4.1)

191 [SOURCE: ISO 14044:2006, 3.28]

192 3.1.4.3

193 system boundary

194 set of criteria specifying which *unit processes* (3.1.4.6) are part of a *product system* (3.1.4.2)

195 [SOURCE: ISO 14044:2006, 3.32]

196 **3.1.4.4**

197 **information module**

198 compilation of data covering a *unit process* (3.1.4.6) or a combination of unit processes that are part of the
199 *life cycle* (3.1.5.2) of a *product* (3.1.4.1)

200 Note 1 to entry: One or more information modules can be the basis of a *partial CFP* (3.1.1.2), and several information
201 modules can be the basis of a *CFP* (3.1.1.1).

202 [SOURCE: ISO 14025:2006, 3.13, modified — removed reference in definition to being used as a basis for
203 type III environmental declarations and added new Note 1 to entry.]

204 **3.1.4.5**

205 **process**

206 set of interrelated or interacting activities that transforms *inputs* (ISO 14040:2006, 3.21) into *outputs*
207 (ISO 14040:2006, 3.25)

208 [SOURCE: ISO 14044:2006, 3.11]

209 **3.1.4.6**

210 **unit process**

211 smallest element considered in the *life cycle inventory analysis* (3.1.5.6) for which *input* (ISO 14040:2006,
212 3.21) and *output* (ISO 14040:2006, 3.25) data are quantified

213 [SOURCE: ISO 14040:2006, 3.34]

214 **3.1.4.7**

215 **functional unit**

216 quantified performance of a *product system* (3.1.4.2) for use as a reference unit

217 Note 1 to entry: As the *CFP* (3.1.1.1) treats information on a *product* basis, the functional unit can be a product unit,
218 sales unit or service unit.

219 Note 2 to entry: For the use of the term 'product unit' see 6.3.3.

220 [SOURCE: ISO 14040:2006, 3.20, modified — Note 1 to entry has been added.]

221 **3.1.4.8**

222 **reference flow**

223 measure of the *outputs* (ISO 14040:2006, 3.25) from *processes* (3.1.4.5) in a given *product system* (3.1.4.2)
224 required to fulfil the function expressed by the *functional unit* (3.1.4.7)

225 Note 1 to entry: For an example of applying the concept of a reference flow, see EXAMPLE in 6.3.3.

226 [SOURCE: ISO 14040:2006, 3.29, modified — Note 1 to entry has been added.]

227 **3.1.4.9**

228 **elementary flow**

229 material or energy entering the system being studied that has been drawn from the *environment*
230 (ISO 14001:2004, 3.5) without previous human transformation or material or energy leaving the system
231 being studied that is released into the environment without subsequent human transformation

232 [SOURCE: ISO 14044:2006, 3.12]

233 **3.1.4.10**

234 **product category**

235 group of *products* (3.1.4.1) that can fulfil equivalent functions

236 [SOURCE: ISO 14025:2006, 3.12]

237 **3.1.4.11**
 238 **product category rules**
 239 **PCR**
 240 set of specific rules, requirements and guidelines for developing *Type III environmental declarations*
 241 (ISO 14025:2006, 3.2) for one or more *product categories* (3.1.4.10)

242 Note 1 to entry: PCR include quantification rules compliant with ISO 14044.

243 [SOURCE: ISO 14025:2006, 3.5, modified — Note 1 to entry has been added.]

244 **3.1.4.12**
 245 **carbon footprint of a product-product category rules**
 246 **CFP-PCR**
 247 set of specific rules, requirements and guidelines for quantification and communication on the *CFP* (3.1.1.1)
 248 for one or more *product categories* (3.1.4.10)

249 **3.1.4.13**
 250 **service life**
 251 period of time during which a *product* (3.1.4.1) in use meets or exceeds the performance requirements

252 [SOURCE: ISO 15686-1:2000, 3.1.1, modified — more general wording has been used.]

253 **3.1.5 Terms relating to life cycle assessment**

254 **3.1.5.1**
 255 **cut-off criteria**
 256 specification of the amount of material or *energy flow* (ISO 14040:2006, 3.13) or the level of significance
 257 associated with *unit processes* (3.1.4.6) or *product system* (3.1.4.2) to be excluded from a *CFP study*
 258 (3.1.1.3)

259 [SOURCE: ISO 14044:2006, 3.18, modified — "environmental significance" has been changed to
 260 "significance" and "study" has been changed to "CFP study".]

261 **3.1.5.2**
 262 **life cycle**
 263 consecutive and interlinked stages of a *product system* (3.1.4.2), from *raw material* (ISO 14040:2006, 3.15)
 264 acquisition or generation from natural resources to final disposal

265 [SOURCE: ISO 14044:2006, 3.1]

266 **3.1.5.3**
 267 **life cycle assessment**
 268 **LCA**
 269 compilation and evaluation of the *inputs* (ISO 14040:2006, 3.21), *outputs* (ISO 14040:2006, 3.25) and the
 270 potential *environmental impacts* (ISO 14001:2004, 3.7) of a *product system* (3.1.4.2) throughout its *life cycle*
 271 (3.1.5.2)

272 [SOURCE: ISO 14044:2006, 3.2]

273 **3.1.5.4**
 274 **life cycle impact assessment**
 275 **LCIA**
 276 phase of *life cycle assessment* (3.1.5.3) aimed at understanding and evaluating the magnitude and
 277 significance of the potential *environmental impacts* (ISO 14001:2004, 3.7) for a *product system* (3.1.4.2)
 278 throughout the *life cycle* (3.1.5.2) of the *product* (3.1.4.1)

279 [SOURCE: ISO 14044:2006, 3.4]

3.1.5.5

life cycle interpretation

phase of *life cycle assessment* (3.1.5.3) in which the findings of either the *life cycle inventory analysis* (3.1.5.6) or the *life cycle impact assessment* (3.1.5.4), or both, are evaluated in relation to the defined goal and scope in order to reach conclusions and recommendations

[SOURCE: ISO 14044:2006, 3.5, modified — the "inventory analysis" has been expanded by using the term "life cycle inventory analysis"]

3.1.5.6

life cycle inventory analysis

LCI

phase of *life cycle assessment* (3.1.5.3) involving the compilation and quantification of *inputs* (ISO 14040:2006, 3.21) and *outputs* (ISO 14040:2006, 3.25) for a *product* (3.1.4.1) throughout its *life cycle* (3.1.5.2)

[SOURCE: ISO 14044:2006, 3.3]

3.1.5.7

sensitivity analysis

systematic procedures for estimating the effects of the choices made regarding methods and data on the outcome of a *CFP study* (3.1.1.3)

[SOURCE: ISO 14044:2006, 3.31, modified — by making specific reference to CFP study]

3.1.6 Terms relating to organizations and interested parties

3.1.6.1

organization

person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives

Note 1 to entry: The concept of organization includes, but is not limited to sole-trader, company, corporation, firm, enterprise, authority, partnership, charity or institution, or part or combination thereof, whether incorporated or not, public or private.

[SOURCE: ISO/IEC Directives, Part 1:2012, Consolidated ISO Supplement, Annex SL, Appendix 3, 3.01]

3.1.6.2

supply chain

those involved, through upstream and downstream linkages, in *processes* (3.1.4.5) and activities delivering value in the form of *products* (3.1.4.1) to the user

Note 1 to entry: In practice, the expression "interlinked chain" applies from suppliers to those involved in end-of-life processing which may include vendors, manufacturing facilities, logistics providers, internal distribution centres, distributors, wholesalers and other entities that lead to the end user.

[SOURCE: ISO/TR 14062:2002, 3.9, modified — Note 1 to entry has been replenished with examples; Note 2 to entry was deleted.]

3.1.6.3

consumer

individual member of the general public purchasing or using goods, property or services for private purposes

[SOURCE: ISO 14025:2006, 3.16]

3.1.6.4**interested party**

person or organization (3.1.6.1) that can affect, be affected by, or perceive themselves to be affected by a decision or activity

Note 1 to entry: This can be an individual or group that has an interest in any decision or activity of an organization.

[SOURCE: ISO/IEC Directives, Part 1:2012, Consolidated ISO Supplement, Annex SL, Appendix 3, 3.02, modified – the admitted term “stakeholder” has been deleted.]

3.1.7 Terms relating to data and data quality**3.1.7.1****primary data**

quantified value of a *unit process* (3.1.4.6) or an activity obtained from a direct measurement or a calculation based on direct measurements at its original source

Note 1 to entry: Primary data need not necessarily originate from the *product system* (3.1.4.2) under study because primary data may relate to a different but comparable product system (3.1.4.2) to that being studied.

Note 2 to entry: Primary data may include *GHG emission factors* (3.1.3.7) and/or *GHG activity data* (ISO 14064-1:2006, 2.11).

3.1.7.2**site-specific data**

data obtained from a direct measurement or a calculation based on direct measurement at its original source within the *product system* (3.1.4.2)

Note 1 to entry: All site-specific data are “*primary data*” (3.1.7.1) but not all primary data are site-specific data because they may also relate to a different *product system* (3.1.4.2).

3.1.7.3**secondary data**

data obtained from sources other than a direct measurement or a calculation based on direct measurements at the original source within the *product system* (3.1.4.2)

Note 1 to entry: Such sources can include databases and published literature validated by competent authorities.

3.1.7.4**uncertainty**

parameter associated with the result of quantification which characterizes the dispersion of the values that could be reasonably attributed to the quantified amount

Note 1 to entry: Uncertainty information typically specifies quantitative estimates of the likely dispersion of values and a qualitative description of the likely causes of the dispersion.

[SOURCE: ISO 14064-1:2006, 2.37]

3.1.8 Terms relating to biogenic material and land use**3.1.8.1****biomass**

material of biological origin excluding material embedded in geological formations and material transformed to fossilised material and excluding peat

Note 1 to entry: Biomass includes organic material (both living and dead), e.g. trees, crops, grasses, tree litter, algae, animals and waste of biological origin, e.g. manure.

3.1.8.2

biogenic carboncarbon derived from *biomass* (3.1.8.1)

3.1.8.3

fossil carbon

carbon which is contained in fossilised material

Note 1 to entry: Examples of fossilised material are coal, oil and natural gas.

3.1.8.4

direct land use change**dLUC**

change in human use or management of land within the boundaries of the product system being assessed

3.1.8.5

indirect land use change**iLUC**

change in the use or management of land which is a consequence of direct land use change, but which occurs outside the product system being assessed

3.1.9 Terms relating to CFP verification

3.1.9.1

CFP verification

confirmation, through provision of evidence, that specified requirements related to a CFP study and a CFP communication have been fulfilled

[Source: ISO 9000:2005, 3.8.4, modified — changed term designation and definition to be specific to CFP verification.]

3.1.9.2

CFP verifiercompetent person, body or team that carries out a *CFP verification* (3.1.9.1)

[SOURCE: ISO 14025:2006, 3.8, modified — changed term designation and definition to be specific to CFP verification and added reference to essential characteristic of the CFP verifier being competent.]

3.2 Abbreviations

<i>A</i>	allocation factor
CFPs	carbon footprint of products
CFP-PCR	carbon footprint of products – product category rules
partial CFP	partial carbon footprint of products
CH ₄	methane
CO ₂	carbon dioxide
CO ₂ e(equivalent)	mass of a given greenhouse gas multiplied by its global warming potential
dLUC	direct land use change
<i>E_M</i>	GHG emissions tied to raw material acquisition and end-of-life operations