

Carbon footprint of products – ISO 14067

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Overview

- Role of international standards
- ISO 14067
 - key features
 - process
- Background
 - climate change
 - Supply chains, consumers
- Conclusions

The ISO System

162 national members
98% of world GDP
97% of world population

Collection of 17 765
ISO Standards

1230 standards
produced
in 2008

192 active TCs
3 183 technical
bodies
50 000 experts

- IT tools
- Standards development procedures
- Consensus building
- Dissemination

Central Secretariat
in Geneva
153 FTE staff

Scope of international standards

- Trade, public policies and international standards
- Formal international standardization
- Private standards in the Information and Communication Technology sector, in agri-food and on social/environmental issues
- Claims, labels, certification, schemes and compliance

ISO standards

- documented agreements, **built on consensus of all interested parties**, containing technical specifications to be used consistently to ensure that e.g. materials, products and services are fit for their purpose;
- contribute to making the development, manufacturing and supply of products and services more efficient, safer and cleaner;
- make trade between countries easier and fairer;
- serve to safeguard consumers and users of products and services in general.

ISO work responding to climate change (1)

Greenhouse Gas Work (TC 207/SC7)

- GHG quantification and reporting
- Competence of GHG validation/verification teams
- Requirements for GHG bodies for use in accreditation
- **Carbon footprint of products** and organizations

Energy efficiency and performance

- Concepts and terminology
- Building performance and efficiency
- Equipment standards (heat pumps)
- ISO 50001 energy performance

Renewable energy sources

- Solar: H/C technologies, terminology, performance ratings, test methods
- Wind: Gears, turbines, IEC joint work
- Biofuel specifications: gas, solid and liquid



ISO work responding to climate change (2)

Measuring impacts of climate change

- UN-ISO cooperation on Global Terrestrial Observing System: river discharge, snow/land cover, biomass

Transportation

- Electric vehicles, batteries, vehicle-to-grid technologies
- Intelligent transport systems

Sustainability perspectives

- ISO 26000 on Social Responsibility
- Bioenergy sustainability criteria
- Sustainability in building construction
- Sustainable event management
- ISO workshop on sustainable business districts
- Sustainable tourism



Role of carbon footprint

- Refers to the calculation of the amount of GHG emissions associated with a company, event, activity, or the lifecycle of a good/service,
- Enables to ascertain and **manage GHG emissions along the supply chain**
- Safeguards the survival of companies in the changing regulatory and economic business landscape
- Furthers the understanding of the risks and opportunities in the supply chain
- Allows to focus effort in response to new regulatory, shareholder and consumer pressures

ISO 14067 - key features (1)

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

Introduction

1. Scope
2. Normative references
3. Terms and definitions
4. Application
5. Principles
6. Methodology for CFP quantification
 - 6.1 General
 - 6.2 Use of CFP-PCR
 - 6.3 Goal and scope of the CFP quantification
 - 6.4 Life cycle inventory analysis for the CFP
 - 6.5 Life cycle impact assessment
 - 6.6 Life cycle interpretation
7. CFP study report

ISO 14067 - key features (2)

8. Publicly available CFP communication

8.1 General

8.2 CFP disclosure report

9. CFP communication

9.1 Options for CFP communication

9.2 CFP communication intended to be available to the public

9.3 CFP communication not intended to be available to the public

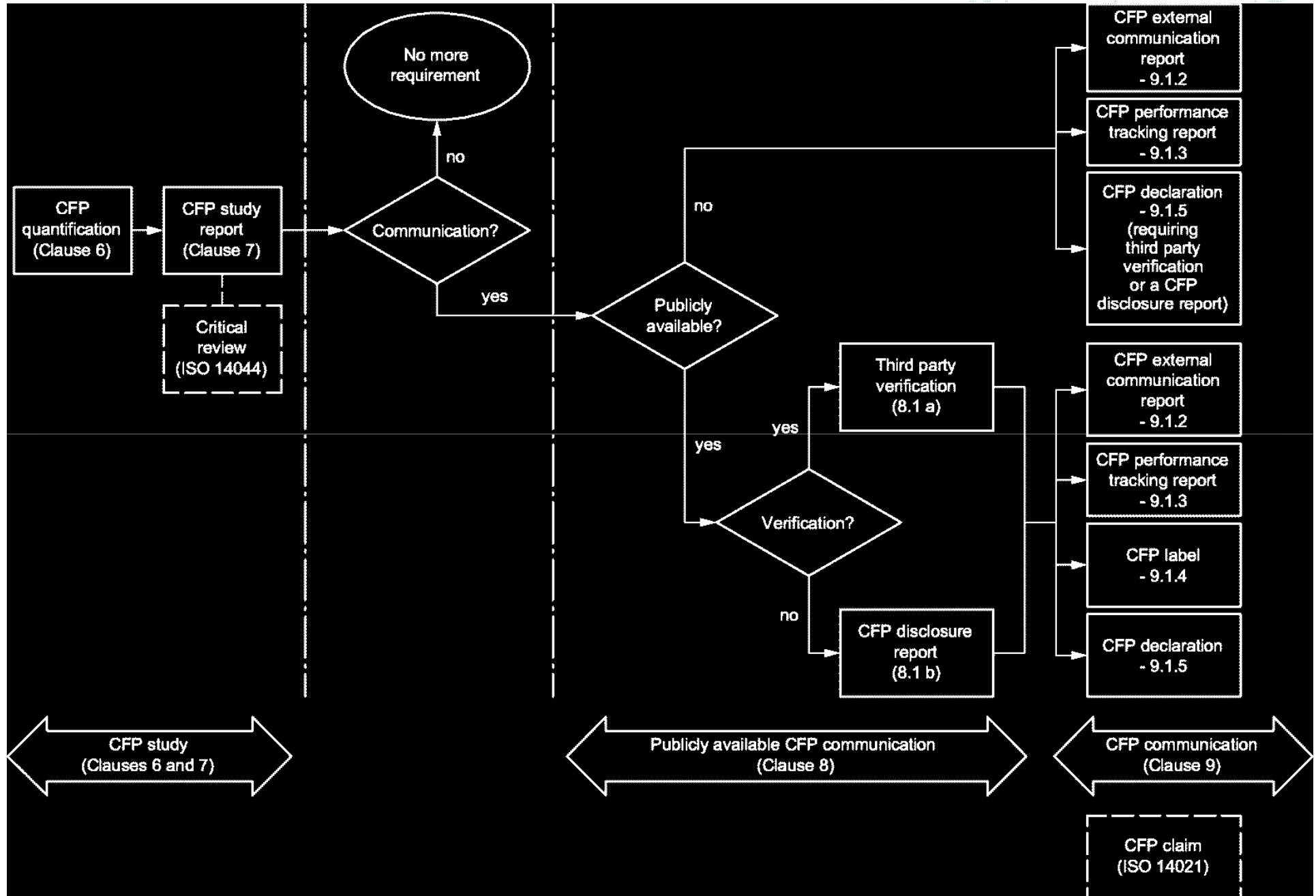
9.4 CFP communication programme

9.5 Creation of CFP-PCR

9.6 Additional aspects for CFP communication

- Annex A (normative) The 100-year GWP
- Annex B (normative) Limitations of the carbon footprint of a product
- Annex C (informative) Possible procedure for the treatment of recycling in CFP studies studies
- Annex D (normative) Comparisons of CFPs

Revised structure of ISO 14067



ISO 14067 - key features (3)

4 Application

- As with all ISO International Standards, this International Standard is not intended to create barriers to trade or to contradict any WTO requirements.
- The CFP study shall not be used for a communication on overall environmental superiority because a CFP study covers only a single impact category.
- Comparisons based on the CFP of different products shall not be made public unless the requirements of Annex D are fulfilled, because of the inherent limitations of the CFP approach (see also Annex B).

ISO 14067 - key features (4)

- Consistency (terminology, principles, requirements)
 - with existing ISO standards (e.g. ISO 14040, 14044, 14020, 14025)
 - With PAS 2050
 - With GHG Protocol Product Standard

- Addresses quantification and communication of CFP
 - Supports linkage to more specific rules (e.g. PCRs under ISO 14025, sector specific standards, internationally agreed sector-specific guidance documents, CFP-PCR)
 - Supports comparisons of CFP if linked to more specific rules (e.g. CFP-PCR) but limited by Annex

- Supports four options for communication of CFP
 - Declaration
 - Label
 - Report
 - Performance tracking report
 - (CFP claim: see ISO 14021)

ISO 14067 - process (1)

- Convenors: Klaus Radunsky (Austria); Daegun Oh (Korea)
- Secretary: Katherina Wührl (DIN, DE)
- 107 Experts from ~ 30 countries (including DC such as Argentina, Brazil, China, India, Indonesia, Malaysia, Mexico)
- Capacity building program by Sweden (SIS-Sida project): MENA region (Lebanon, Syria, Israel, Palestine, Jordan)
- Liaisons
 - Within TC 207 (e.g. SC 3, SC 5), with other TCs
 - With other organisations e.g. ANEC, IAI, EC, IEC, GEN, WRI/WBCSD

ISO 14067 - process (2)

- Apr 2008: 1st meeting of ISO/TC 207 WG 2 (Vienna)
- Jun 2008: 2nd meeting of ISO/TC 207 WG 2 (Bogota)
- Nov 2008: NWIP on CFP agreed
- Dec 2008: WD of ISO 14067
- Jan 2009: 3rd meeting of ISO/TC 207 WG 2 (Kota Kinabalu)
- Apr 2009: WD 1 of ISO 14067
- Jun 2009: 4th meeting of ISO/TC 207 WG 2 (Cairo)
- Sept 2009: WD2 ISO 14067
- Oct 2009: 5th meeting of ISO/TC 207 WG 2 (Vienna)
- Dec 2009: WD 3 ISO 14067
- Feb 2010: 6th meeting of ISO/TC 207 WG 2 (Tokyo)
- Mar 2010: CD of ISO 14067
- Jun 2010: 7th meeting of ISO/TC 207 WG 2 (Leon, Mexico)
- Sep 2010: CD for ballot
- Jan 2011: 8th meeting of ISO/TC 207 WG 2 (Trieste, Italy)
- Mar 2011: CD-2 for ballot
- Jun 2011: 9th meeting of ISO/TC 207 WG 2 (Oslo, Norway)
- Sept 2011: CD-3 for ballot
- Nov 2011: 10th meeting of ISO/TC 207 WG 2 (Mississauga, Canada)
- Jan 2012: ISO/DIS 14067 for ballot
- Jun 2012: 11th meeting of ISO/TC 207 WG 2 (Bangkok, Thailand)
- Oct 2012: DIS-2 for ballot (2 month voting period)

ISO 14067 - process (3)

- Next steps:
 - Provide vote & comments to DIS-2 by 4 Dec 2012 at the latest;
 - 12th meeting of ISO/TC 207 WG 2 (Vienna, Austria) from 18-22 February 2013;
 - April 2013 – release of ISO/FDIS 14067?
 - September 2013 – release of ISO/IS 14067?

ISO 14067 - process (4)

ISO 14067

- 11 international meetings
- up to 100 participants
- 35 countries (50 countries voted)
- 10 external liaison-organizations

Interested parties

- economy
- science
- consumers
- NGOs
- government representatives
- consultants
- liaison organizations
-

Challenges

- Basic challenges:
 - right balance between practicality – environmental integrity/credibility
 - gaining broad support (e.g. limitations, risks of use as a trade barrier)

- Harmonization challenge:
 - GHG Protocol – PAS 2050 – ISO 14067
 - common basis: Life Cycle Assessment (ISO 14040)
 - internal harmonization within ISO (verification, communication)

Examples (1)



claims?
declarations?

Examples (2)



Labels!

How can ISO help?

- ISO can provide benchmarks to ensure that consumers are not misled about environmental benefits claimed on labels
- ISO can work to moderate trade effects
- ISO provides a truly international forum of technical experts where new trends can be discussed and scrutinized

Background (1) – climate change

- Because of Arctic and Antarctic, sea level rise around one meter or more by 2100;
- Ocean acidification together with ocean warming and de-oxygenation will lead to significant impacts in marine ecosystems above CO₂ concentrations of 450 ppm;
- net global cumulative CO₂ emissions must not exceed 2 trillion t in order to meet the 2 degrees goal;
- CO₂ emissions in 2010 reached 30.6 bio t;

Background (2) – carbon flows

Analysis of international carbon flows by Carbon Trust shows:

- **Twenty five per cent** of global CO₂ emissions “flow” between the country of production and the country of consumption via international trade;
- **Consumer decisions** drive the flow of embodied emissions in final consumer goods

Vision and realities

- Transition to a zero/low-carbon society implies that the CFP of all products and services have to be managed
- Bottom-up efforts along supply chains complement top-down efforts at national and international level
- Reducing the risks of climate change and meeting the 2 degree goal may require negative global GHG emissions after 2050

Conclusions

- Life cycle assessment of GHG emissions throughout the supply chain (CFP) is key to sustainable procurement
- Standards will support the WTO mandate of facilitating international trade
- Road testing exercises demonstrated the practicality and usefulness of the CFP-standards
- ISO process has gained significant engagement from developing countries

*Thank you for
your
attention!!!*

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