

## EVENTS AND TOURISM SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 63, 8596, 961, 962, 963, 965, 969

PCR REGISTRATION NUMBER TO BE ADDED BY THE SECRETARIAT  
DRAFT VERSION 1.0.0. DO NOT USE OR CITE.

VALID UNTIL 20XX-YY-ZZ

DRAFT VERSION FOR OPEN  
CONSULTATION

DRAFT

## INTRODUCTION TO OPEN CONSULTATION

This draft PCR document is available for open consultation from 2023-12-01 until 2024-02-01. Feel free to forward the draft to any other stakeholder you might think is relevant, including colleagues and other organisations.

We are interested in comments from stakeholders on:

- General
  - Alignment with PCRs available in other programmes for type III environmental declarations, industry-specific LCA guidelines or similar.
- Scope of PCR
  - Product category definition and description
  - Classification of product category using CPC codes
- Goal and scope, life cycle inventory and life cycle impact assessment
  - Functional unit/declared unit
  - System boundary
  - Allocation rules
  - Data quality requirements
  - Recommended databases for generic data
  - Impact categories and impact assessment methodology
- Additional information

Comments shall be sent directly to the PCR Moderator (contact details available in Section 1). There is a template for comments on [www.environdec.com](http://www.environdec.com) that may be used.

For questions about the PCR, please contact the PCR moderator. For general questions about the International EPD® System, EPD or PCR development, please contact the Secretariat via [pcr@environdec.com](mailto:pcr@environdec.com).

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# 1 INTRODUCTION

This document constitutes Product Category Rules (PCR) developed in the framework of the International EPD System: a programme for type III environmental declarations<sup>1</sup> according to ISO 14025:2006, ISO 14040:2006, ISO 14044:2006, and product-specific standards such as EN 15804 and ISO 21930 for construction products. Environmental Product Declarations (EPD) are voluntary documents for a company or organisation to present transparent, consistent and verifiable information about the environmental performance of their products (goods or services).

The rules for the overall administration and operation of the programme are the General Programme Instructions (GPI), publicly available at [www.environdec.com](http://www.environdec.com). A PCR complements the GPI and the normative standards by providing specific rules, requirements and guidelines for developing an EPD for one or more specific product categories (see Figure 1). A PCR should enable different practitioners using the PCR to generate consistent results when assessing products of the same product category.

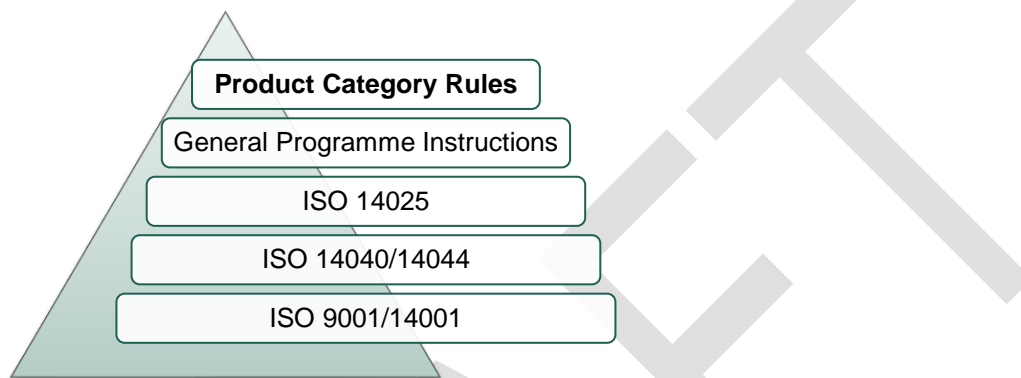


Figure 1 The hierarchy between PCRs, standards and other documents.

Within the present PCR, the following terminology is adopted:

- The term “shall” is used to indicate what is obligatory, i.e. a requirement.
- The term “should” is used to indicate a recommendation, rather than a requirement. Any deviation from a “should” requirement shall be justified in the PCR development process.
- The terms “may” or “can” is used to indicate an option that is permissible.

For definitions of further terms used in the document, see the normative standards.

A PCR is valid for a pre-determined period of time to ensure that it is updated at regular intervals. The latest version of the PCR is available at [www.environdec.com](http://www.environdec.com). Stakeholder feedback on PCRs is very much encouraged. Any comments on this PCR may be sent directly to the PCR Moderator and/or the Secretariat during its development or during its period of validity.


Any references to this document shall include the PCR registration number, name and version.

The programme operator maintains the copyright of the document to ensure that it is possible to publish, update, and make it available to all organisations to develop and register EPDs. Stakeholders participating in PCR development should be acknowledged in the final document and on the website.

<sup>1</sup> Type III environmental declarations in the International EPD® System are referred to as EPDs, Environmental Product Declarations.

## 2 GENERAL INFORMATION

### 2.1 ADMINISTRATIVE INFORMATION

Name:	Events and tourism services
Registration number and version:	Added by the Secretariat
Programme:	 The International EPD System
Programme operator:	EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden. Website: <a href="http://www.environdec.com">www.environdec.com</a> E-mail: <a href="mailto:info@environdec.com">info@environdec.com</a>
PCR Moderator:	Adriana Del Borghi ( <a href="mailto:adriana.delborghi@unige.it">adriana.delborghi@unige.it</a> ) CESISP, TETIS Institute Srl, University of Genoa, Italy
PCR Committee:	<ul style="list-style-type: none"><li>TETIS Institute Srl -Spin Off of the University of Genoa <a href="http://www.tetisinstitute.it">www.tetisinstitute.it</a></li><li>CE.Si.S.P. (Centre for the Development of Product Sustainability), <a href="http://www.cesisp.unige.it">www.cesisp.unige.it</a></li><li>BLYP (Be Like Your Place)</li></ul>
Date of publication and last revision:	Added by the Secretariat
Valid until:	Added by the Secretariat
Schedule for renewal:	<p>A PCR is valid for a pre-determined time period to ensure that it is updated at regular intervals. When the PCR is about to expire, the PCR Moderator shall initiate a discussion with the Secretariat how to proceed with updating the PCR and renewing its validity.</p> <p>A PCR may be also be updated without prolonging its period of validity, provided significant and well-justified proposals for changes or amendments are presented.</p> <p>See <a href="http://www.environdec.com">www.environdec.com</a> for the latest version of the PCR.</p> <p>When there has been an update of the PCR, the new version should be used to develop EPDs. The old version may however be used for 90 days after the publication date of the new version, as long as the old version has not expired.</p>
Standards conformance:	General Programme Instructions of the International EPD System, version 4.0, based on ISO 14025 and ISO 14040/14044
PCR language(s):	At the time of publication, this PCR was available in English. If the PCR is available in several languages, these are available at <a href="http://www.environdec.com">www.environdec.com</a> . In case of translated versions, the English version takes precedence in case of any discrepancies.

### 2.2 SCOPE OF PCR

#### 2.2.1 PRODUCT CATEGORY DEFINITION AND DESCRIPTION

This document provides Product Category Rules (PCR) for the assessment of the environmental performance of Events and tourism services and the declaration of this performance by an EPD. The product category corresponds to UN CPC 63, 8596, 961, 962, 963, 965 and 969.

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The scope of this PCR are events and tourism services, as defined by the following subclasses under UN CPC's classification:

- Section: 6 – Distributive trade services; accommodation, food and beverage serving services; transport services; and electricity, gas and water distribution services
  - Division: 63 – Accommodation, food and beverage services
    - Group: 631 – Accommodation services for visitors
      - Class: 6311 – Room or unit accommodation services for visitors
      - Class: 6312 – Camp site services
      - Class: 6313 – Recreational and vacation camp services
    - Group: 632 - Other accommodation services for visitors and others
      - Class: 6321 – Room or unit accommodation services for students in student residences
      - Class: 6322 – Room or unit accommodation services for workers in workers hostels or camps
      - Class: 6329 – Other room or unit accommodation services n.e.c.
    - Group: 633 - Food serving services
      - Class: 6331 – Meal serving services with full restaurant services
      - Class: 6332 – Meal serving services with limited services
      - Class: 6339 – Event catering and other food serving services
    - Group: 634 - Beverage serving services
      - Class: 6340 – Beverage serving services
- Section: 8 – Business and production services
  - Division: 85 – Support services
    - Group: 859 – Other support services
      - Class: 8596 – Convention and trade show assistance and organization services
- Section: 9 – Community, social and personal services
  - Division: 96 – Recreational, cultural and sporting services
    - Group: 961 – Audiovisual and related services
      - Class: 9611 – Sound recording services
      - Class: 9612 – Motion picture, videotape, television and radio programme production services
      - Class: 9613 – Audiovisual post-production services
      - Class: 9615 – Motion picture projection services
    - Group: 962 – Performing arts and other live entertainment event presentation and promotion services
      - Class: 9621 – Performing arts event promotion and organization services
      - Class: 9622 – Performing arts event production and presentation services
    - Group: 963 – Services of performing and other artists
      - Class: 9631 – Services of performing artists
      - Class: 9632 – Services of authors, composers, sculptors and other artists, except performing artists
      - Class: 9633 – Original works of authors, composers and other artists except performing artists, painters and sculptors
    - Group: 965 – Sports and recreational sports services
      - Class: 9651 – Sports and recreational sports event promotion and organization services
      - Class: 9659 – Other sports and recreational sports services
    - Group: 969 – Other amusement and recreational services
      - Class: 9691 – Amusement park and similar attraction services
      - Class: 9699 – Other recreation and amusement services n.e.c.

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This PCR is not applicable to UN CPC 9692 - Gambling and betting services, 9614 Motion picture, videotape and television programme distribution services, 9623 - Performing arts facility operation services, 9652 - Sports and recreational sports facility operation services, 9693 - Coin-operated amusement machine services.

The product group and UN CPC code shall be specified in the EPD.

See <https://unstats.un.org/unsd/classifications/Family/Detail/1074> for additional information on the UN CPC classification system.

## 2.2.2 GEOGRAPHICAL SCOPE

This PCR may be used globally.

## 2.2.3 EPD VALIDITY

An EPD based on this PCR shall be valid for a 5-year period starting from the date of the verification report ("approval date"), or until the EPD has been de-registered from the International EPD System.

An EPD shall be updated and re-verified during its validity if changes in technology or other circumstances have led to:

- an increase of 10% or more of any of the declared indicators of environmental impact,
- errors in the declared information, or
- significant changes to the declared product information, content declaration, or additional environmental, social or economic information.

If such changes have occurred, but the EPD is not updated, the EPD owner shall contact the Secretariat to de-register the EPD.



### 3 PCR REVIEW AND BACKGROUND INFORMATION

This PCR was developed in accordance with the PCR development process described in the GPI of the International EPD System, including open consultation and review.

#### 3.1 OPEN CONSULTATION

##### 3.1.1 VERSION 1.0

This PCR is available for open consultation from 2023-12-01 until 2024-02-01, during which any stakeholder was able to provide comments by contacting the PCR Moderator and/or the Secretariat.

*Add information about any physical or web-based meetings held during the open consultation phase, if applicable.*

Stakeholders were invited via e-mail or other means to take part in the open consultation and were encouraged to forward the invitation to other relevant stakeholders. The following stakeholders provided comments during the open consultation and agreed to be listed as contributors in the PCR and at [www.environdec.com](http://www.environdec.com).

*List of stakeholder names and affiliation will be added after the open consultation.*

##### 3.1.2 PCR REVIEW

##### 3.1.3 VERSION 1.0

PCR review panel:	The Technical Committee of the International EPD System. A full list of members is available at <a href="http://www.environdec.com">www.environdec.com</a> . The review panel may be contacted via <a href="mailto:info@environdec.com">info@environdec.com</a> .  Members of the Technical Committee were requested to state any potential conflict of interest with the PCR Committee, and if there were conflicts of interest they were excused from the review.
Chair of the PCR review:	<i>To be added by the Secretariat</i>
Review dates:	<i>To be added by the Secretariat</i>

#### 3.2 EXISTING PCRS FOR THE PRODUCT CATEGORY

As part of the development of this PCR, existing PCRs and other internationally standardized methods that could potentially act as PCRs were considered to avoid unnecessary overlaps in scope and to ensure harmonisation with established methods of relevance for the product category. The existence of such documents was checked among the following EPD programmes and international standardisation bodies:

- International EPD System. [www.environdec.com](http://www.environdec.com).
- PEP ecopassport®. <http://www.pep-ecopassport.org/create-a-pep/produce-a-lca/>
- Japan Environmental Management Association for Industry (JEMAI). <http://www.ecoleaf-jemai.jp/eng/pcr.html>
- UL Environment. <https://industries.ul.com/environment/transparency/product-category-rules-pcrs#uledev>
- EPD Italy <https://www.epditaly.it/pcr-in-via-di-sviluppo/>
- European Commission Product Environmental Footprint (PEF) initiative, [Single Market for Green Products - Environment - European Commission \(europa.eu\)](https://ec.europa.eu/euro-pec/)

Table 1 lists the identified PCRs and other standardized methods.

Table 1 Existing PCRs and other internationally standardized methods that were considered to avoid overlap in scope and to ensure harmonisation with established methods.

NAME OF PCR/STANDARD	PROGRAMME/STANDARDISATION BODY	REGISTRATION NUMBER, VERSION NUMBER/DATE OF PUBLICATION	SCOPE
PCR Events	EPD Italy	PCR 2022-0004, version 1.0, publication date: 2023-02-14	CPC 962

### 3.3 REASONING FOR DEVELOPMENT OF PCR

This PCR was developed to enable publication of EPDs for this product category based on ISO 14025, ISO 14040/14044. The PCR enables different practitioners to generate consistent results when assessing the environmental impact of products or services of the same product category, and thereby it supports comparability of products or services within a product category.

The motivation to develop this PCR is based on the harmonization of methodological rules for the LCA studies regarding the events and tourism, community, social and personal services, and the declaration of the environmental performances with an EPD.

### 3.4 UNDERLYING STUDIES USED FOR PCR DEVELOPMENT

The methodological choices made during the development of this PCR (functional unit, system boundary, allocation methods, impact categories, data quality rules, etc.) were primarily based on the following underlying studies:

- Cerutti et al. (2016), Assessment methods for sustainable tourism declarations: the case of holiday farms. J. Clean. Prod. 111, 511–519.
- Del Borghi, A. (2013), LCA and communication: Environmental Product Declaration". Int J Life Cycle Assess, 18:293–295. doi:10.1007/s11367-012-0513-9. Editorial
- Del Borghi, A., Gallo, M., Silvestri, N., Baccelli, O., Croci, E., Molteni, T., (2022), Impact of circular measures to reduce urban CO2 emissions: An analysis of four case studies through a production- and consumption-based emission accounting method. Journal of Cleaner Production, 380, 134932 DOI 10.1016/j.jclepro.2022.134932
- De Camillis, C., Peeters, P., Petti, L., Raggi, A., (2012), Tourism Life Cycle Assessment (LCA): Proposal of a new methodological framework for sustainable consumption and production in visions for global tourism industry. Creat. Sustain. Compet. 248–268.
- El Hanandeh, A., (2013). Quantifying the carbon footprint of religious tourism: the case of Hajj. J. Clean. Prod. 52, 53–60.
- Gallo M., Arcioni L., Leonardi D., Moreschi L., Del Borghi A., (2020), GHG Accounting for sustainable mega-events: How lessons learnt during the Milan Expo 2015 world fair could lead to less carbon- intensive future mega-events. Sustainable Production and Consumption, 22, pp. 88-109. DOI 10.1016/j.spc.2020.02.007
- Herrero et al., (2022), Tourism under a life cycle thinking approach: A review of perspectives and new challenges for the tourism sector in the last decades, Science of the Total Environment, 845.
- Lenzen, M., Sun, Y.Y., Faturay, F., Ting, Y.P., Geschke, A., Malik, A., (2018). The carbon footprint of global tourism. Nat. Clim. Chang. 8 (6), 522–528.
- Pan, S.Y., Gao, M., Kim, H., Shah, K.J., Pei, S.L., Chiang, P.C., (2018). Advances and challenges in sustainable tourism toward a green economy. Sci. Total Environ. 635, 452–469.
- Tetis Institute Srl (2023), LCA report: A-LIVE Alex Braga concert, Version. 0.
- Tetis Institute Srl (2021), GHG report Event "CORTINA 2021-FIS Alpine\_World Ski Championships", Version. 1.
- Tetis Institute Srl (2021), GHG report Construction Site "CORTINA 2021-FIS Alpine\_World Ski Championships", Version. 1.
- World Travel and Tourism Council (WTTC), (2021). Travel And Tourism Economic Impact, Global Economic Impact And Trends 2021. Report.

## 4 GOAL AND SCOPE, LIFE CYCLE INVENTORY AND LIFE CYCLE IMPACT ASSESSMENT

The goal of this section is to provide specific rules, requirements and guidelines for developing an EPD for the product category as defined in Section 2.2.1.

### 4.1 FUNCTIONAL UNIT

This PCR allows different functional units depending on the different product subcategories:

- **1 person/day** for group 631 - Accommodation services for visitors and 632 – Other accommodation services for visitors and others
- **1 person** for group 633 - Food serving services and 634 – Beverage serving services
- **1 service (for one-day events) and 1 service/day (for multi-days events)** for class: 8596 – Convention and trade show assistance and organization services, group 962 – Performing arts and other live entertainment event presentation and promotion services, group 963 – Services of performing and other artists and group 969 – Other amusement and recreational services
- **1 sport activity/person** for group 965 – Sports and recreational sports services
- **1 service** for group 961 – Audiovisual and related services

See Section 5.4.3 for mandatory service/event information.

### 4.2 TECHNICAL SPECIFICATION, LIFESPAN AND REFERENCE SERVICE LIFE (RSL)

Not applicable for this product category.

### 4.3 SYSTEM BOUNDARY

The scope of this PCR and EPDs based on it is cradle-to-grave.

#### 4.3.1 LIFE-CYCLE STAGES

For the purpose of different data quality rules and for the presentation of results, the life cycle of the product is divided into three life cycle stages:

- Upstream processes (from cradle-to-gate) or pre-service/event
- Core processes (from gate-to-gate) or execution of service/event
- Downstream processes (from gate-to-grave) or post-service/event

In the EPD, the environmental performance associated with each of the three life-cycle stages above shall be reported separately and in aggregated form. The processes included in the scope of the PCR and belonging to each life cycle stage are described in Sections 4.3.1.1– 4.3.1.3.

##### 4.3.1.1. Upstream processes

The following unit processes are part of the service/event system and shall be classified as upstream processes:

- production of food, beverages, gadgets, merchandising and of all products distributed or sold during the execution of the service/event,
- production of all products, materials and goods necessary for the the execution of the service/event,
- production of communication and promotional material (e.g. tickets, coupons, brochures, programs etc.),
- production of disposable materials used in the temporary and stationary infrastructure (e.g. tape, toilet paper, cleaning materials etc.),

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- production and assembly of temporary structures (e.g. stands, stages, sound, lighting systems, writing, kitchen equipment, camping facilities, film sets etc) and other set materials.
- maintenance of stationary facilities and their lighting and electrical systems, water systems, gas systems, and thermos-technical systems and maintenance of all the materials necessary for the execution of the service/event (e.g. maintenance of sets for sound or motion picture videos)
- construction of stationary facilities and their lighting and electrical systems, water systems, gas systems, and thermos-technical systems if built specifically for the service/event,
- recycling processes of secondary materials from other product life cycles,
- generation of electricity and production of fuels, steam and other energy carriers used in upstream processes (e.g. electrical energy and resources consumption for organizational meetings, construction of temporary and stationary facilities etc.),
- accommodation of staff/organizers for the organizational meeting, preparation of service/event, location scouting etc. Accommodation is meant as infrastructure, cleaning consumables, other materials used in the hotel, such as coffee maker, lamps, computers, cookstoves, dryers, furniture, mattresses, chemicals, textiles, tap water, electricity, heat and waste,
- service/event transport of service/event owners, organizers, workforce, suppliers, and regulatory bodies before the execution of the service/event (organizational meetings, inspections, construction of temporary and stationary facilities, identification of the location etc.)
- end of life treatment and transportation of waste generated during the upstream processes.

Upstream processes not listed may also be included. All elementary flows at resource extraction shall be included, except for the flows that fall under the general cut-off rule in Section 4.5.

4.3.1.2. Core processes

The following unit processes are part of the service/event system and shall be classified as core processes if applicable, as not all unit processes are applicable to all categories represented by this PCR):

- transport of food, beverages, gadgets, merchandising and of all products distributed or sold during the execution of the service/event,
- transport of all products, materials and goods necessary for the the execution of the service/event,
- transport of disposable materials used in the temporary and stationary infrastructure (e.g. tape, toilet paper, cleaning materials etc.)
- transport of temporary structures (e.g. stands, stages, sound, lighting systems, writing, kitchen equipment, camping facilities),
- service/event transport of service/event owners, organizers, staff, troupe, attendees, accompanying people and media. Included both the transport of people to participate in the service/ event and transport during the service/event (e.g. transport of crew during film or music video production),
- accommodation of staff, organizers, troupe. Accommodation is meant as infrastructure, cleaning consumables, other materials used in the hotel, such as coffee maker, lamps, computers, cookstoves, dryers, furniture, mattresses, chemicals, textiles, tap water, electricity, heat and waste,
- generation of electricity and production of fuels, steam and other energy carriers used in the execution of the service/event (i.e. cooling, heating, entertainment etc).

Core processes not listed may also be included. Manufacturing of a minimum of 99% of the total weight of the declared product (intended as service) shall be included.

The following processes shall not be included:

- manufacturing of production equipment, buildings and other capital goods (excluding temporary structures and structures built specifically for the service/event, see upstream processes),
- accommodation of attendees, accompanying people and media, and
- research and development activities.

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#### 4.3.1.3. Downstream processes

The following unit processes are part of the service/event system and shall be classified as downstream processes (if applicable, as not all unit processes are applicable to all categories represented by this PCR):

- disassembly of temporary structures,
- transportation of the temporary and freight structures and other set materials (return round trip),
- service/event transport of service/event owners, organizers, staff, attendees, accompanying people and media (return round trip) and transport for post-service/event activities,
- generation of electricity and production of fuels, steam and other energy carriers used in downstream processes,
- post-production editing (e.g. video and sound editing),
- end of life treatment and transportation of waste generated during the service/event.

Downstream processes not listed may also be included.

The following processes shall not be included:

- film, music video, videotape distribution

### 4.3.2 OTHER BOUNDARY SETTING

#### 4.3.2.1. Boundary towards nature

Boundaries to nature are defined as where the flows of material and energy resources leaves nature and enters the technical system (i.e. the product system). Emissions cross the system boundary to nature when they are emitted to air, soil or water.

#### 4.3.2.2. Boundary towards other technical systems

Boundaries towards other technical systems define the flow of materials and components to/from the product system under study and from/to other product systems. If there is an inflow of recycled material to the product system in the production/manufacturing stage, the transport from the scrapyard/collection site to the recycling plant, the recycling process, and the transportation from the recycling plant to the site where the material is being used shall be included. If there is an outflow of material or component to recycling, the transportation of the material to the scrapyard/collection site shall be included. The material or component going to recycling is then an outflow from the product system.

See Section 4.6 for further guidance.

#### 4.3.2.3. Temporal boundary

The temporal boundary defines the time period for which the life cycle inventory data is recorded, e.g. for how long emissions from waste deposits are accounted. As default, the time period over which inputs to and outputs from the product system is accounted for shall be 100 years from the year that the LCA model best represents, considering the representativeness of the inventory data. This year shall, as far as possible, represent the year of the publication of the EPD.

#### 4.3.2.4. Geographical boundary

The geographical boundary defines the geographical coverage of the LCA. This shall reflect the physical reality of the product under study, accounting for the representativeness of technology, input materials and input energy.

## 4.4 SYSTEM DIAGRAM



Figure 2 System diagram illustrating the processes that shall be included in the product system, divided into upstream, core and downstream processes. The illustration of processes to include may not be exhaustive.

## 4.5 CUT-OFF RULES

A cut-off rule of 1% shall be applied. In other words, the included inventory data (not including inventory data of processes that are explicitly outside the system boundary as described in Section 4.3) shall together give rise to at least 99% of the results of any of the environmental impact categories. The cut-off of inventory data should, however, be avoided, and all available inventory data shall be used.

The cut-off of inventory data, based on the above cut-off rule, should be an output of a sensitivity analysis, alone or in combination with expert judgment based on experience of similar product systems. Further, the cut-off shall be possible to verify in the verification process, hence the exclusion of inventory data based on the cut-off rule shall be documented in the LCA report, and the EPD developer shall provide the information the verifier considers necessary to verify the cut-off.

## 4.6 ALLOCATION RULES

Allocation can be divided into allocation of co-products, i.e. allocation of unit processes that generate several products (intended as services/events), and allocation of waste, i.e. allocation of unit processes that generate materials that are, for example, landfilled recovered, recycled or reused, and which require further processing to cease being waste and become products (see criteria for end-of-waste state in Section 4.6.2).

The principles for allocation of co-products and allocation of waste are described separately in the following subsections.

## 4.6.1 CO-PRODUCT ALLOCATION

The following hierarchy of allocation methods shall be followed for co-product allocation:

1. Allocation shall be avoided, if possible, by dividing the process to be allocated into sub-processes and collecting the inventory data for each sub-process.
2. If allocation cannot be avoided, the inventory data should be partitioned between the different co-products in a way that reflects the underlying physical relationships between them, i.e. allocation should reflect the way in which the inventory data changes if the quantities of delivered co-products change.
3. If a physical relationship between the inventory data and the delivery of co-products cannot be established, the inventory data should be allocated between the co-products in a way that reflects other relationships between them. For example, inventory data might be allocated between co-products in proportion to their economic values. If economic allocation is used, a sensitivity analysis exploring the influence of the choice of the economic value shall be included in the LCA report.

For short-term events that occur within a main event (e.g. a concert of one singer within a concert involving multiple singers), an allocation should be made on the basis of time (minutes or hours). This applies to all inputs and outputs not attributable only to the short event.

The allocation methods shall be described in the EPD.

## 4.6.2 ALLOCATION OF WASTE TREATMENT PROCESSES

Allocation of waste shall follow the polluter pays principle and its interpretation in EN 15804: "processes of waste processing shall be assigned to the product system that generates the waste until the end-of-waste state is reached." The end-of-waste state is reached when all the following criteria for the end-of-waste state are fulfilled (adapted from EN 15804):

- the recovered material, component or product is commonly used for specific purposes;
- a market or demand, identified e.g. by a positive economic value, exists for such a recovered material, component or product;
- the recovered material, component or product fulfils the technical requirements for the specific purposes and meets the existing legislation and standards applicable to products; and
- the use of the recovered material, product or construction element will not lead to overall adverse environmental or human health impacts.

The above outlined principle means that the generator of the waste shall carry the full environmental impact until the point in the product life cycle in which the end-of-waste criteria are fulfilled. Waste may have a negative economic market value, and then the end-of-waste stage is typically reached after (part of) the waste processing and further refinement, at the point at which the waste no longer has a negative market value. This allocation method is (in most cases) in line with a waste generator's juridical and financial responsibilities. See the GPI for further information and examples.

## 4.7 DATA QUALITY REQUIREMENTS AND SELECTION OF DATA

Life cycle inventory data are classified into specific data and generic data, where the latter can be selected generic data or proxy data. The data categories are defined as follows:

- specific data (also referred to as "primary data" or "site-specific data"):
  - data gathered from the actual manufacturing plant where product-specific processes are carried out;
  - actual data from other parts of the life cycle traced to the product under study, for example site-specific data on the production of materials or generation of electricity provided by contracted suppliers, and transportation data on distances, means of transportation, load factor, fuel consumption, etc., of contracted transportation providers; and
  - LCI data from databases on transportation and energyware that is combined with actual transportation and energy parameters as listed above.
- generic data (sometimes referred to as "secondary data"), divided into:
  - selected generic data: data (e.g. commercial databases and free databases) that fulfil prescribed data quality requirements for precision, completeness, and representativeness (see below Section 4.7.1),
  - proxy data: data (e.g. commercial databases and free databases) that do not fulfil all of the data quality requirements of "selected generic data".



Specific data shall be used for the core processes. Specific data shall be used for upstream and downstream processes, when available, otherwise generic data may be used. Generic data should be used in cases in which they are representative for the purpose of the EPD, e.g. for bulk and raw materials on a spot market, if there is a lack of specific data on the final product or if a product consists of many components.

## 4.7.1 RULES FOR USING GENERIC DATA

For generic data to be classified as "selected generic data", the following requirements:

- datasets shall be based on attributional LCA modelling (e.g., not be based on marginal data and not include credits from system expansion),
- the reference year shall be as current as possible and should be representative for the validity period of the EPD,
- the 1% cut-off rule (as described in Section A.3.3) shall be met on the level of the product system,
- datasets shall represent average values for a specific reference year; however, how data are generated could vary, e.g. over time, and then they should have the form of a representative annual average value for a specified reference period (such deviations shall be justified and declared in the EPD), and
- the representativeness of the data shall be assessed to be better than  $\pm 5\%$ , in terms of the environmental impact calculated on the basis of the data, of data that is fully representative for the given temporal, technological and geographical context.

If selected generic data that meets the above data quality requirements are not available, proxy data may be used. The environmental impacts associated with proxy data shall not exceed 10% of the overall environmental impact of the product system.

The EPD may include a data quality declaration to demonstrate the share of specific data, selected generic data and proxy data contributing to the results of the environmental impact indicators.

## 4.7.2 EXAMPLES OF DATABASES FOR GENERIC DATA

Table 2 lists examples of databases and datasets to be used for generic data. Please note that a data quality assessment shall be performed also for data listed in the table, and that other data that fulfil the data quality requirements may also be used.

PROCESS	GEOGRAPHICAL SCOPE	DATASET	DATABASE
Steel	Global	-	Worldsteel <a href="http://www.worldsteel.org">www.worldsteel.org</a> Ecoinvent 3.9 (or latest version), <a href="https://ecoinvent.org/">https://ecoinvent.org/</a>
Primary copper/ Copper products	Global	-	ICA (International Copper Association) <a href="http://www.copperinfo.com">www.copperinfo.com</a> ECI (European Copper Institute – Life Cycle Centre) <a href="http://www.copper-life-cycle.org">www.copper-life-cycle.org</a> Ecoinvent 3.9 (or latest version), <a href="https://ecoinvent.org/">https://ecoinvent.org/</a>
Electricity	Global	-	Data combined with IEA (International Energy Agency) statistics on electricity generation mixes for nations, regions etc. <a href="http://www.iea.org/Textbase/stats/index.asp">www.iea.org/Textbase/stats/index.asp</a>  AIB (Association of Issuing Bodies) European residual mix: <a href="https://www.aib-net.org/facts/european-residual-mix">https://www.aib-net.org/facts/european-residual-mix</a> Ecoinvent 3.9 (or latest version), <a href="https://ecoinvent.org/">https://ecoinvent.org/</a>
Aluminium	Global	-	EAA (European Aluminium Association) <a href="http://www.aluminium.org">www.aluminium.org</a>  Ecoinvent 3.9 (or latest version), <a href="https://ecoinvent.org/">https://ecoinvent.org/</a>
Plastics	Global	-	PE Plastics Europe (former APME Association of Plastics Manufacturers in Europe) <a href="http://www.plasticseurope.org">www.plasticseurope.org</a>  Ecoinvent 3.9 (or latest version), <a href="https://ecoinvent.org/">https://ecoinvent.org/</a>
Chemicals	Global	-	PE Plastics Europe (former APME Association of Plastics Manufacturers in Europe) <a href="http://www.plasticseurope.org">www.plasticseurope.org</a>  Ecoinvent 3.9 (or latest version), <a href="https://ecoinvent.org/">https://ecoinvent.org/</a>
Fuels	Global	-	European Reference Life Cycle Data System" (ELCD) <a href="http://lca.jrc.ec.europa.eu/">http://lca.jrc.ec.europa.eu/</a>



Transports	Global	-	Ecoinvent 3.9 (or latest version), <a href="https://ecoinvent.org/">https://ecoinvent.org/</a> NTM (Network for Transport and Environment) or regional alternatives <a href="http://www.ntm.a.se/eng-index.asp">www.ntm.a.se/eng-index.asp</a>  European Reference Life Cycle Data System (ELCD), <a href="http://lca.jrc.ec.europa.eu/">http://lca.jrc.ec.europa.eu/</a>  Ecoinvent 3.9 (or latest version), <a href="https://ecoinvent.org/">https://ecoinvent.org/</a>
Building materials and products	Global	-	BEES (Building for Environmental and Economic Sustainability) <a href="http://www.bfrl.nist.gov/oa/software/bees.html">www.bfrl.nist.gov/oa/software/bees.html</a>  Ecoinvent 3.9 (or latest version), <a href="https://ecoinvent.org/">https://ecoinvent.org/</a>
Waste management	Global	-	European Reference Life Cycle Data System" (ELCD) <a href="http://lca.jrc.ec.europa.eu/">http://lca.jrc.ec.europa.eu/</a>  Ecoinvent 3.9 (or latest version), <a href="https://ecoinvent.org/">https://ecoinvent.org/</a>  WRATE (Waste and Resources Assessment Tool for the Environment), <a href="http://www.wrate.co.uk/">http://www.wrate.co.uk/</a>

Table 2 Examples of databases and datasets to use for generic data.

In specific parts of the world, other databases may be more appropriate. Other data that fulfil the data quality requirements may also be used. Data quality assessment shall also be performed for the data sets in the listed database by an LCA practitioner.

## 4.7.3 DATA QUALITY REQUIREMENTS AND OTHER MODELLING GUIDANCE PER LIFE-CYCLE STAGE

Below are further data quality requirement per life-cycle stage. Exceptions to the requirements may be accepted, if justified in the EPD; such exceptions are subject to the approval by the verifier on a case-to-case basis.

### 4.7.3.1. Upstream processes

- Data referring to processes and activities upstream in a supply chain over which the EPD owner direct management control shall be specific and collected on site.
- Data referring to contractors that supply main parts, packaging, or main auxiliaries should be requested from the contractor as specific data, as well as infrastructure, where relevant.
- In case specific data is lacking, selected generic data may be used. If this is also lacking, proxy data may be used (see Section 4.7).
- For upstream processes modelled with specific data, generation of electricity used shall be accounted for in this priority:
  1. Specific electricity mix as generated, or purchased from an electricity supplier, demonstrated by a Guarantee of Origin or similar as provided by the electricity supplier.
  2. Residual electricity mix of the electricity supplier on the market.
  3. Residual electricity mix on the market.
  4. Electricity consumption mix on the market.

The residual electricity mix is the mix when all contract-specific electricity that has been sold to other customers has been subtracted from the total consumption mix.

"The market" in the above hierarchy may correspond a national electricity market, if this can be justified.

The mix of electricity used in upstream processes shall be documented in the EPD, where relevant.

### 4.7.3.2. Core processes

- Transport from the final delivery point of raw materials, chemicals, main parts, and components (see above regarding upstream processes) to the manufacturing plant/place of service provision should be based on the actual transportation mode, distance from the supplier, and vehicle load, if available.

EVENTS AND TOURISM SERVICES

PRODUCT CATEGORY CLASSIFICATION: UN CPC 63, 8596, 961, 962, 963, 965, 969

- Services: Specific data shall be used for the consumption of materials, chemicals, steam, heat, electricity, etc., necessary for execution of the service
- The transport of the materials and people shall be described in the EPD, and be accounted for in this priority:
  1. Actual transportation modes and distances, representing the geographical scope of the EPD.
  2. A weighted average of transportation modes and distances, representing the geographical scope of the EPD.
  3. Calculated as:
    - a. Global service/event: 10 000 km transport by airplane,
    - b. Continental service/event: 2 000 km transport by airplane (for Europe), 4 000 km transport by airplane (for Oceania, Asia, America and Africa),
    - c. National service/event: 1 000 km by airplane (one third), 500 km by car (one third) and 500 km by train (one third).
- For electricity used in the core processes, generation of electricity used shall be accounted for in this priority:
  1. Specific electricity mix as generated, or purchased from an electricity supplier, demonstrated by a Guarantee of Origin or similar as provided by the electricity supplier.
  2. Residual electricity mix of the electricity supplier on the market.
  3. Residual electricity mix on the market.
  4. Electricity consumption mix on the market. This option shall not be used for electricity used in processes over which the manufacturer (EPD owner) has direct control<sup>2</sup>.

The residual electricity mix is the mix when all contract-specific electricity that has been sold to other customers has been subtracted from the total consumption mix.

"The market" in the above hierarchy may correspond a national electricity market, if this can be justified.

The mix of electricity used in the core processes shall be documented in the EPD, where relevant.

#### 4.7.3.3. Downstream processes

Data on the emissions from the execution of service/event should be based on documented tests, verified studies in conjunction with average or typical product use, or recommendations concerning suitable product use. Whenever applicable, test methods shall be internationally recognised.

- The use of electricity in the region/country where the service/event is performed (as specified in the geographical scope of the EPD) shall be accounted for in the following priority:
  1. Residual electricity mix on the market.
  2. Electricity consumption mix on the market.

The residual electricity mix is the mix when all contract-specific electricity that has been sold to other customers has been subtracted from the total production mix.

"The market" in the above hierarchy may correspond a national electricity market, if this can be justified.

The mix of electricity used in the downstream processes shall be documented in the EPD, where relevant.

- The transport of the materials and people shall be described in the EPD, and be accounted for in this priority:
  1. Actual transportation modes and distances, representing the geographical scope of the EPD.
  2. A weighted average of transportation modes and distances, representing the geographical scope of the EPD.
  3. Calculated as:
    - a. Global service/event: 10 000 km transport by airplane,

<sup>2</sup> For electricity markets without trade of Guarantees of Origin (or similar), the residual mix will, however, be identical to the consumption mix.

- b. Continental service/event: 2 000 km transport by airplane (for Europe), 4 000 km transport by airplane (for Oceania, Asia, America and Africa),
  - c. National service/event: 1 000 km by airplane (one third), 500 km by car (one third) and 500 km by train (one third).
- Waste treatment processes of service/event waste should be based on specific data, if available.
- Scenarios for the end-of-life stage shall be technically and economically practicable and compliant with current regulations in the relevant geographical region based on the geographical scope of the EPD. Key assumptions regarding the end-of-life stage scenario shall be documented in the LCA report.

#### 4.7.4 DATA QUALITY DECLARATION

EPDs may include a declaration of the quality of data used in the LCA calculations.

### 4.8 ENVIRONMENTAL PERFORMANCE INDICATORS

The EPD shall declare the default environmental performance indicators and their methods as described at the website ([www.environdec.com/indicators](http://www.environdec.com/indicators)), which includes both inventory indicators and indicators of potential environmental impact. The source and version of the impact assessment methods and characterisation factors used shall be reported in the EPD. Alternative regional impact assessment methods and characterisation factors may be calculated and displayed in addition to the default list. If so, the EPD shall contain an explanation of the difference between the different sets of indicators, as they may appear to the reader to display duplicate information.

If the default list of environmental performance indicators and methods at the website is updated, the previous version of the list is valid in parallel to the new version during a transition period of 90 days, as described at the website.

Apart from the required inventory indicators, other inventory data may also be declared in the EPD, if relevant and useful for EPD users. Such data shall not be declared in the main body of the EPD, but in an annex.

See Section 5.4.5 for all the indicators to be declared in the EPD.

### 4.9 INCLUDING MULTIPLE PRODUCTS IN THE SAME EPD

#### 4.9.1 SERVICES/EVENTS FROM THE SAME COMPANY

Similar services/events, taking place in a single or several sites/cities and for a single or several clients covered by the same PCR and provided by the same company/association with the same major steps in the core processes may be included in the same EPD if none of the declared environmental performance indicators differ by more than 10% between any of the included services/events. The results for the environmental performance indicators of one representative service/event shall be declared according to Section 5.4.5. The choice of representative service/event shall be justified in the EPD, using, where applicable, statistical parameters.

#### 4.9.2 SECTOR EPDS

The International EPD System allows for an industry association to develop an EPD in the form of a Sector EPD. A Sector EPD declares the average product of multiple companies in a clearly defined sector in a clearly defined geographical area. Services covered in a sector EPD shall follow the same PCR and the same functional unit shall be applied.

Any communication of the results from a Sector EPD should contain the information that the results are based on averages obtained from the sector as defined in the EPD. The communication shall not claim that the sector EPD results are representative for a certain manufacturer or its service.

The following information shall also be included a Sector EPD:

- a list of the contributing manufacturers/organizations that the Sector EPD covers,
- a description of how the selection of the sites/services has been done and how the average has been determined, and
- a statement that the document covers average values for an entire or partial product category (specifying the percentage of representativeness) and, hence, the declared service is an average.

## 5 CONTENT AND FORMAT OF EPD

EPDs based on this PCR shall contain the information described in this section. Flexibility is allowed in the formatting and layout provided that the EPD still includes the prescribed information. A generic template for EPDs is available at [www.environdec.com](http://www.environdec.com).

The EPD content shall:

- be in line with the requirements and guidelines in ISO 14020 (Environmental labels and declarations – General principles),
- be verifiable, accurate, relevant and not misleading, and
- not include rating, judgements or direct comparison with other products<sup>3</sup>.

An EPD should be made with a reasonable number of pages for the intended audience and use.

The content of EPDs published in machine-readable format shall correspond with the content of the underlying EPD.

### 5.1 EPD LANGUAGES

EPDs should be published in English but may also be published in additional languages. If the EPD is not available in English, it shall contain an executive summary in English including the main content of the EPD. This summary is part of the EPD and, thus, also subject to the verification process.

### 5.2 UNITS AND QUANTITIES

The following requirements apply for units and quantities:

- The International System of Units (SI units) shall be used where available, e.g., kilograms (kg), Joules (J) and metres (m). Reasonable multiples of SI units may be decided in the PCR to improve readability, e.g., grams (g) or megajoules (MJ). The following exceptions apply:
  - Resources used for energy input (primary energy) should be expressed as kilowatt-hours (kWh) or megajoules (MJ), including renewable energy sources, e.g., hydropower, wind power and geothermal power.
  - Water use should be expressed in cubic metres (m<sup>3</sup>)
  - Temperature should be expressed in degrees Celsius (°C),
  - Time should be expressed in the units most practical, e.g., seconds, minutes, hours, days or years.
  - Results of the environmental performance indicators shall be expressed in the units prescribed by the impact assessment methods, e.g. kg CO<sub>2</sub> equivalents.
- Three significant figures<sup>4</sup> should be adopted for all results. The number of significant digits shall be appropriate and consistent.
- Scientific notation may be used, e.g. 1.2E+2 for 120, or 1.2E-2 for 0.012.
- The thousand separator and decimal mark in the EPD shall follow one of the following styles (a number with six significant figures shown for illustration):
  - SI style (French version): 1 234,56
  - SI style (English version): 1 234.56

In case of potential confusion or intended use of the EPD in markets where different symbols are used, the EPD shall state what symbols are used for thousand separator and decimal mark.

- Dates and times presented in the EPD should follow the format in ISO 8601. For years, the prescribed format is YYYY-MM-DD, e.g., 2017-03-26 for March 26<sup>th</sup>, 2017.
- The result tables shall:

<sup>3</sup> Therefore, results of normalization are not allowed to be reported in the EPD.

<sup>4</sup> Significant figures are those digits that carry meaning contributing to its precision. For example with two significant digits, the result of 123.45 shall be displayed as 120, and 0.12345 shall be displayed as 0.12. In scientific notation, these two examples would be displayed as 1.2\*10<sup>2</sup> and 1.2\*10<sup>-2</sup>.

- Only contain values or the letters "ND" (Not Declared). It is not possible to specify ND for mandatory indicators. ND shall only be used for voluntary parameters that are not quantified because no data is available.<sup>5</sup>
- Contain no blank cells, hyphens, less than or greater than signs or letters (except "ND").
- Use the value "0" only for parameters that have been calculated to be zero.
- Footnotes shall be used to explain any limitation to the result value.

## 5.3 USE OF IMAGES IN EPD

Images used in the EPD, especially pictures featured on the cover page, may in themselves be interpreted as an environmental claim. Images such as trees, mountains, wildlife that are not related to the declared service/event shall therefore be used with caution and in compliance with national legislation and best available practices in the markets in which the EPD is intended to be used.

## 5.4 EPD REPORTING FORMAT

The reporting format of the EPD shall include the following sections:

- Cover page (see Section 5.4.1)
- Programme information (see Section 5.4.2)
- Product information (see Section 5.4.3)
- Environmental performance (see Section 5.4.5)
- Additional environmental information (see Section 5.4.6)
- Additional social and economic information (see Section 5.4.7)
- References (see Section 5.4.9)
- The following sections shall be included, if relevant:
- Differences versus previous versions (see Section 5.4.8)
- Executive summary in English (see Section 5.4.10)

### 5.4.1 COVER PAGE

The cover page shall include:

- Product name and image (product intended as service)
- Name and logotype of EPD owner
- The text "Environmental Product Declaration" and/or "EPD"
- Programme: The International EPD System, [www.environdec.com](http://www.environdec.com)
- Programme operator: EPD International AB
- Logotype of the International EPD System
- EPD registration number as issued by the programme operator<sup>6</sup>
- Date of publication (issue): 20XX-YY-ZZ
- Date of revision: 20XX-YY-ZZ, when applicable
- Date of validity: 20XX-YY-ZZ

<sup>5</sup> This requirement does not intend to give guidance on what indicators are mandated ("shall") or voluntary.

<sup>6</sup> The EPD shall not include a "registration number" if such is provided by the certification body, as this may be confused with the registration number issued by the programme operator.

- A note that “An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at [www.environdec.com](http://www.environdec.com).”
- A statement of conformity with ISO 14025.
- For EPDs covering multiple products: a statement that the EPD covers multiple products and a list of all products covered by the EPD (product intended as service)
- For Sector EPDs: a statement that the EPD is a Sector EPD.
- In the case of EPDs registered through a regional hub (a regional or national programme based on and fully aligned with the International EPD System through an agreement with the programme operator), “Programme”, “Programme operator”, and “Logotype” shall be expanded to include a reference to the regional programme and the organisation responsible for it.
- Where applicable, the cover page shall also include the following information:
- Information about dual registration of EPD in another programme, such as registration number and logotype.
- A statement of conformity with other standards and methodological guidelines.

## 5.4.2 PROGRAMME INFORMATION

The programme information section of the EPD shall include:

- Address of programme operator: *EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden, E-mail: [info@environdec.com](mailto:info@environdec.com)*
- The following statement on the requirements for comparability of EPDs, adapted from ISO 14025: “EPDs within the same product category but from different programmes may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison.”
- A statement that the EPD owner has the sole ownership, liability and responsibility of the EPD
- Information about verification<sup>7</sup> and the PCR in a table with the following format and contents:

Product category rules (PCR): <name, registration number, version and UN CPC code(s)>
PCR review was conducted by: <name and organisation of the review chair, and information on how to contact the chair through the programme operator>
Independent third-party verification of the declaration and data, according to ISO 14025:2006: <input type="checkbox"/> EPD process certification <input type="checkbox"/> EPD verification <input type="checkbox"/> Pre-verified tool
<i>In case of certification bodies:</i> Accredited by: <name of the accreditation body and accreditation number, if applicable>.  <i>In case of individual verifiers:</i> <Name, and organisation of the individual verifier. The signature may also be included> Approved by: The International EPD System
The procedure for follow-up during EPD validity, as defined in the GPI, involves third-party verifier: <input type="checkbox"/> Yes <input type="checkbox"/> No

<sup>7</sup> If the EPD has been verified by an approved individual verifier who has received contractual assistance from a certification body that is not accredited, this certification body shall not be included in this table.

### 5.4.3 SERVICE/EVENT INFORMATION

The service/event information section of the EPD shall include:

- address and contact information to EPD owner,
- description of the organisation. This may include information on products- or management system-related certifications (e.g. ISO 14024 Type I environmental labels, ISO 9001- and 14001-certificates and EMAS-registrations) and other relevant work the organisation wants to communicate (e.g. SA 8000, supply-chain management and social responsibility),
- name and location of site(s) where the service/event is performed,
- service/event identification by name, and an unambiguous identification of the product by standards, concessions or other means,
- identification of the service/event according to the UN CPC scheme system. Other relevant codes for service/event classification may also be included, e.g.
  - Common Procurement Vocabulary (CPV),
  - United Nations Standard Products and Services Code® (UNSPSC),
  - Classification of Products by Activity (NACE/CPA),
  - Australian and New Zealand Standard Industrial Classification (ANZSIC), or
  - Global Trade Item Number (GTIN).
- a description of the service/event,
- a description of the background system, including the main technological aspects,
- for EPDs covering multiple services/events: a description of the selection of services/events/sites, a list of contributing services providers (if Sector EPD), etc. (see Section 4.9),
- geographical scope of the EPD, i.e., for which geographical location(s) of use and end-of-life the service/event's performance has been calculated,
- functional unit,
- declaration of the year(s) covered by the data used for the LCA calculation and other relevant reference years,
- reference to the main database(s) for generic data and LCA software used, if relevant,
- system diagram of the processes included in the LCA, divided into the life cycle stages,
- description that the EPD system boundary is "cradle-to-grave",
- information on which life-cycle stages are not considered (if any), with a justification of the omission,
- references to any relevant websites for more information or explanatory materials,
- the transport scenario assumed in the core and downstream processes,
- for group 631 and 632: the type of accommodation, the location where the accommodation is located, the number of rooms (if applicable), the maximum and average number of guests per night,
- for group 633: description (quantitative and qualitative) of the average meal/drink, number of people to whom the average meal/drink was provided,
- for class 8596, group 962, 963 and 969: geographic location of the event (venue, Province, Region), number of attendees, duration of the event (days or minutes),
- for group 961: duration of the final video (minutes), number of production days, number of people involved (divided between crew, actors etc).

This section may also include:

- name and contact information of organisation carrying out the underlying LCA study,
- any additional information about the underlying LCA-based information, such as cut-off rules, data quality, allocation methods, and other methodological choices and assumptions,



- if end-of-life treatment is not included, the EPD shall contain a statement that it shall not be used for communicating environmental information to consumers/end users of the product.

## 5.4.4 CONTENT DECLARATION

Not applicable for this product category.

## 5.4.5 ENVIRONMENTAL PERFORMANCE

### 5.4.5.1. Environmental impacts

The EPD shall declare the environmental impact indicators, per functional unit, per life-cycle stage and in aggregated form, using the default impact categories, impact assessments methods and characterisation factors available at [www.environdec.com/indicators](http://www.environdec.com/indicators). The source and version of the impact assessment methods and characterisation factors used shall be reported in the EPD.

Alternative regional life cycle impact assessment methods and characterisation factors may be calculated and displayed in addition to the default list. If so, the EPD shall contain an explanation of the difference between the different sets of indicators, as they may appear to the reader to display duplicate information.

### 5.4.5.2. Use of resources

The EPD shall declare the indicators for resource use listed at [www.environdec.com/indicators](http://www.environdec.com/indicators) per *functional* unit, per life-cycle stage and in aggregated form.

For this PCR the two indicators "Secondary materials" and "Net use of fresh water" are mandatory and not optional. Only the indicators "Renewable and non-renewable secondary fuels" are optional.

### 5.4.5.3. Waste production and output flows

Waste generated along the whole life cycle production chains shall be treated following the technical specifications described in the GPI. The EPD shall declare the indicators for waste production and output flows as listed at [www.environdec.com/indicators](http://www.environdec.com/indicators) per functional unit, per life-cycle stage and in aggregated form.

The indicators for waste production and other output flows listed at <http://www.environdec.com/indicators> are mandatory and not optional.

### 5.4.5.4. Other environmental indicators

The following indicators should be reported in the EPD, per functional unit, per life-cycle stage:

- **Freshwater aquatic eco-toxicity.** This category indicator refers to the impact on freshwater ecosystems, as a result of emissions of toxic substances to air, water and soil. Eco-toxicity Potential (FAETP) is calculated with USES-LCA, describing fate, exposure and effects of toxic substances. The time horizon is infinite. Characterization factors are expressed as 1,4-dichlorobenzene equivalents/kg emission. The indicator applies at global/continental/ regional and local scale.
- **Marine eco-toxicity.** This category indicator refers to impacts of toxic substances on marine ecosystems (see description freshwater toxicity).
- **Terrestrial eco-toxicity.** This category indicator refers to impacts of toxic substances on terrestrial ecosystems (see description freshwater toxicity).
- **Human toxicity.** This category concerns effects of toxic substances on the human environment. Characterization factors, Human Toxicity Potentials (HTP), are calculated with USES-LCA, describing fate, exposure and effects of toxic substances for an infinite time horizon. For each toxic substance HTP's are expressed as 1,4-dichlorobenzene equivalents/ kg emission.
- **Ecological footprint.** The impact on ecosystem quality from land transformation and occupation are empirically characterized at the biome level (e.g., ecological footprint) is quantified through the following impact categories: land transformation, biodiversity [m2yr arable] and land occupation, biodiversity [m2yr arable] (Bulle et al., 2019) (method IMPACT World+).



## 5.4.6 ADDITIONAL ENVIRONMENTAL INFORMATION

An EPD may declare additional environmentally relevant information not derived from the LCA-based calculations, such as:

- the release of dangerous substances into indoor air, soil, and water during the use stage,
- information on recycling including, e.g. suitable procedures for recycling the products used in the service/event and the potential environmental benefits gained,
- information on a suitable method of reuse of the products used in the service/event and procedures for disposal as waste at the end of its life cycle,
- information regarding disposal of the products used in the service/event, and any other information considered necessary to minimise the product's end-of-life impacts, and
- a more detailed description of an organisation's overall environmental work, in addition to the information listed under Section 5.4.3, such as:
  - the existence of any type of organised environmental activity, and
  - information on where interested parties may find more details about the organisation's environmental work.

Any additional environmental information declared shall be substantiated and verifiable, and be derived using appropriate methods and be specific, accurate, not misleading, and relevant to the specific product. Quantitative information is preferred over qualitative information.

## 5.4.7 ADDITIONAL SOCIAL AND ECONOMIC INFORMATION

The EPD may also include other relevant social and economic information as additional and voluntary information. This may be product information or a description of an organisation's overall work on social or economic sustainability, such as activities related to supply chain management or social responsibility.

Any additional social and economic information declared shall be substantiated and verifiable, and be derived using appropriate methods and be specific, accurate, not misleading, and relevant to the specific product. Quantitative information is preferred over qualitative information.

## 5.4.8 DIFFERENCES VERSUS PREVIOUS VERSIONS

For EPDs that have been updated, the following information shall be included:

- a description of the differences versus previously published versions, and
- a revision date on the cover page.

## 5.4.9 REFERENCES

A reference section shall be included, including a list of all sources referred to in the EPD, including the GPI (including version number), and PCR (registration number, name, and version) used to develop the EPD.

## 5.4.10 EXECUTIVE SUMMARY IN ENGLISH

The executive summary, if included (see Section 5.1), shall contain relevant summarised information related to the programme, product, environmental performance, information related to pre-certified EPDs, and information related to sector EPDs. Besides this, further information may be added such as additional environmental, social or economic information, references as well as differences versus previous EPD versions.

## 6 LIST OF ABBREVIATIONS

ANZSIC	Australian and New Zealand Standard Industrial Classification
CPC	Central product classification
EPD	Environmental product declaration
GPI	General Programme Instructions
ISO	International Organization for Standardization
LCA	Life cycle assessment
LCI	Life cycle inventory
NACE/CPA	Classification of products by activity
ND	Not declared
PCR	Product category rules
RSL	Reference service life
SI	The International System of Units
UN	United Nations
UNSPSC	United Nations standard products and services code

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## 8 VERSION HISTORY OF PCR

### VERSION 1.0, 20~~ZZ~~-~~XX~~-~~YY~~

Original version of the PCR.

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