

**PRESERVES AND PREPARATIONS OF MEAT (INCLUDING MEAT OFFAL OR BLOOD)**  
PRODUCT CATEGORY CLASSIFICATION: UN CPC 2118

PCR 2016:05  
VERSION 2.0.1

VALID UNTIL: 2026-03-31



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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. Environmental Product Declarations (EPD) are voluntary documents for a company or organisation to present transparent information about the life cycle environmental impact for their goods or services.

The rules for the overall administration and operation of the programme are the General Programme Instructions, publicly available at [www.environdec.com](http://www.environdec.com). A PCR complements the General Programme Instructions and the 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.

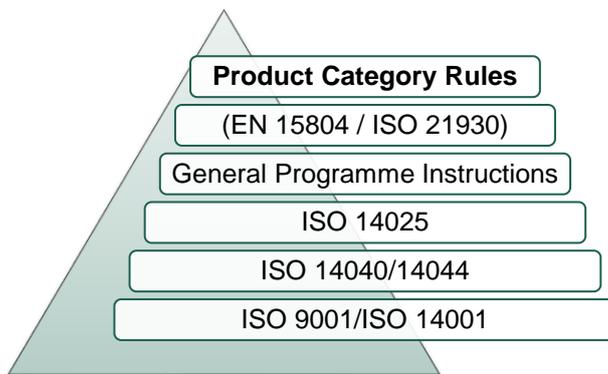


Figure 1 Illustration PCR in relation to the hierarchy of standards and other documents.

Within the present PCR, the following terminology is adopted:

- The term “shall” is used to indicate what is obligatory.
- The term “should” is used to indicate a recommendation, rather than a requirement.
- The term “may” or “can” is used to indicate an option that is permissible

For the definition of 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 via [www.environdec.com](http://www.environdec.com). Stakeholder feedback on PCRs is very much encouraged. Any comments on this PCR document may be given via the PCR Forum at [www.environdec.com](http://www.environdec.com) or sent directly to the PCR moderator during its development or during the period of validity.

Any references to this document should 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 when necessary, and 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 EPD, Environmental Product Declarations.

## 2 GENERAL INFORMATION

### 2.1 ADMINISTRATIVE INFORMATION

Name:	Preserves and preparations of meat (including meat offal or blood)
Registration number and version:	2016:05, Version 2.0.1
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">mailto:info@environdec.com</a>
PCR moderator:	Sonia Pignatelli, Life Cycle Engineering, Italy, <a href="mailto:pignatelli@studioice.it">pignatelli@studioice.it</a>
PCR Committee:	Life Cycle Engineering, Italy ( <a href="http://www.lcengineering.eu">www.lcengineering.eu</a> ) Inalca, Italy ( <a href="http://www.inalca.it">www.inalca.it</a> )
Date of publication and last revision:	2025-05-13, version 2.0.1 A version history is available in Section 8.
Valid until:	2026-03-31
Schedule for renewal:	A PCR is valid for a pre-determined period of time 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 document and renewing its validity.  A PCR document may be revised during its period of validity provided significant and well-justified proposals for changes or amendments are presented. See <a href="http://www.environdec.com">www.environdec.com</a> for up-to-date information and the latest version.
Standards conformance:	<ul style="list-style-type: none"><li>▪ General Programme Instructions of the International EPD® System, version 3.01, based on ISO 14025 and ISO 14040/14044</li><li>▪ PCR Basic Module, CPC Division 21 Meat, fish, fruit, vegetables, oil and fats, version 3.02</li></ul>
PCR language(s):	This PCR was developed and is available in English. 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 Preserves and preparations of meat, meat offal or blood and the declaration of this performance by an EPD. The product category corresponds to UN CPC 2118<sup>2</sup>.

This PCR covers all products under the CPC (ver.2) class 2118 as well as its underlying classes and subclasses. Its position in the UN CPC hierarchy is:

- Division: 21 - Meat, fish, fruit, vegetables, oils and fats
  - Group: 211 – Meat and meat products
    - **Class 2118 - Preserves and preparations of meat, meat offal or blood (and its Subclasses)**

For the purposes of this document, the term “meat” refers to the *animal flesh or offal* that is used as food for human consumption.

The categorization of *processed meat products* is based on the processing technologies and takes into account the treatment of raw materials and the individual processing steps, as suggested in FAO (2007)<sup>3</sup>, see Figure 2.

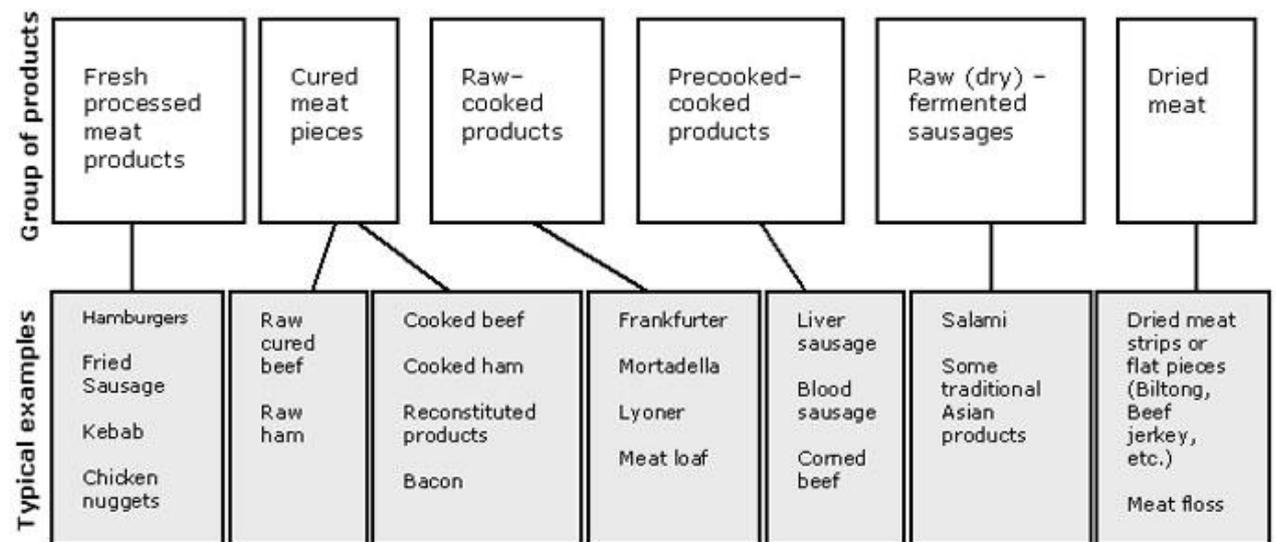


Figure 2 - Meat products grouped according to the processing technology applied.

- I. **Fresh processed meat products:** they are meat mixes composed of comminuted **muscle meat**, with varying quantities of **animal fat**. Products are **salted only**; curing is not practiced. **Non-meat ingredients** are added in smaller quantities for improvement of flavour and binding, in low-cost versions larger quantities are added for volume extension. All meat and non-meat ingredients are usually added fresh (raw). Heat treatment (**frying, cooking**) is applied immediately prior to consumption to make the products palatable. If the fresh meat mixes are filled in casings, they are defined as **sausages** (e.g. frying sausages);
- II. **Cured meat pieces:** they are made of **entire** pieces of muscle meat and can be sub-divided into two groups, **cured-raw meats** and **cured-cooked meats**. The curing for both groups, **cured-raw** and **cured-cooked**, is in principle similar: The meat pieces are treated with small amounts of nitrite, either as dry salt or as salt solution in water. The difference between the two groups of cured meats is:

<sup>2</sup> Central Product Classification (CPC), Version 2.1, United Nations, New York, 2015, <https://unstats.un.org/unsd/classifications/econ/>

<sup>3</sup> Heinz G., et.al. (FAO) 2007. Meat processing technology for small to medium scale producers, RAP publication 2007/20 (<http://www.fao.org/3/a-ai407e.pdf>, accessed September 2020)

- **Cured-raw meats** do not undergo any heat treatment during their manufacture. They undergo a processing period, which comprises curing, fermentation, and ripening in controlled climatized conditions, which makes the products palatable. The products are consumed raw/uncooked.
  - **Cured-cooked meats**, after the curing process of the raw muscle meat, always undergo heat treatment to achieve the desired palatability.
- III. **Raw-cooked products:** the product components *muscle meat, fat and non-meat ingredients* which are processed raw, i.e. uncooked by comminution and mixing. The resulting viscous mix/batter is portioned in sausages or otherwise and thereafter submitted to heat treatment, i.e. "cooked". The heat treatment induces protein coagulation which results in a typical firm-elastic texture for raw-cooked products. In addition to the typical texture the desired palatability and a certain degree of bacterial stability are achieved.
- IV. **Precooked-cooked products:** they contain mixes of lower-grade muscle trimmings, fatty tissues, head meat, animal feet, animal skin, blood, liver and other edible slaughter by-products. There are two heat treatment procedures involved in the manufacture of precooked-cooked products. The first heat treatment is the **precooking of raw meat materials** and the second heat treatment the **cooking of the finished product mix** at the end of the processing stage. Precooked-cooked meat products are distinguished from the other categories of processed meat products by precooking the raw materials prior to grinding or chopping, but also by utilizing the greatest variety of meat, animal by-product and non-meat ingredients.
- V. **Raw (dry)-fermented sausages:** they are **uncooked meat products** and consist of more or less **coarse mixtures of lean meats and fatty tissues** combined with salts, nitrite (curing agent), sugars and spices and other non-meat ingredients filled into casings. They receive their characteristic properties (flavour, firm texture, red curing colour) through **fermentation processes**. Shorter or longer ripening phases combined with moisture reduction ("drying") are necessary to build-up the typical flavour and texture of the final product. The products are not subjected to any heat treatment during processing and are in most cases distributed and consumed raw.
- VI. **Dried meat:** they are the result of the simple *dehydration or drying of lean meat* in natural conditions or in an **artificially created environment**. Their processing is based on the experience that dehydrated meat, from which a substantial part of the natural tissue fluid was evaporated, will not easily spoil. Pieces of lean meat without adherent fat are cut to a specific uniform shape that permits the gradual and equal drying of whole batches of meat. Dried meat is not comparable to fresh meat in terms of shape and sensory and processing properties but has significantly longer shelf-life. Many of the nutritional properties of meat, in particular the protein content, remain unchanged through drying.

More and detailed information are available at the FAO website<sup>4</sup>, where the same group division and description come from; the entire publication could be downloaded, too.

In conclusion, all kinds of meat, meat offal<sup>5</sup> and mechanically separated meat (MSM)<sup>6</sup> are included in this product group, as defined by UN CPC 2118, but not limited to the following Subclasses:

- 21181 - Pig meat, cuts, salted, dried or smoked (bacon and ham)
- 21182 - Bovine meat, salted, dried or smoked
- 21183 - Other meat and edible meat offal, salted, in brine, dried or smoked; edible flours and meals of meat or meat offal
- 21184 - Sausages and similar products of meat, offal or blood
- 21186 - Prepared dishes and meals based on meat
- 21189 - Other prepared or preserved meat, meat offal or blood.

The CPC code 21185 (Extracts and juices of meat, fish, crustaceans, molluscs or other aquatic invertebrates) is not included in this PCR.

<sup>4</sup> Heinz G., et.al. (FAO) 2007. Meat processing technology for small to medium scale producers, RAP publication 2007/20 (<http://www.fao.org/3/a-ai407e.pdf>, accessed September 2020)

<sup>5</sup> *Offal* means fresh meat other than that of the carcasses, including viscera and blood.

<sup>6</sup> *Mechanically separated meat* or *MSM* means the product obtained by removing meat from flesh-bearing bones after boning or from poultry carcasses, using mechanical means resulting in the loss or modification of the muscle fibre structure.

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The product group and UN CPC code (CPC 2118) shall be specified in the EPD.

## 2.2.2 GEOGRAPHICAL REGION

This PCR is applicable to be used globally.

## 2.2.3 EPD VALIDITY

An EPD based on this PCR shall be valid from its registration and publication at [www.environdec.com](http://www.environdec.com) and for a five-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 indicators listed in Section 5.4.5.1,
- errors in the declared information, or
- significant changes to the declared product information, content declaration, or additional environmental 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 process described in the General Programme Instructions of the International EPD® System, including PCR review and open consultation.

#### 3.1 PCR REVIEW

##### 3.1.1 VERSION 1.0, 2016-05-26

Original version. Version 1.0 of this PCR was reviewed by the Technical Committee of the International EPD System.

##### 3.1.2 VERSION 1.1, 2019-02-15

Updated in accordance with GPI 3.0 and new PCR basic module.

##### 3.1.3 VERSION 1.11, 2019-02-15

Updated to clarified terms of use; some editorial changes were made too by the Technical Secretariat.

##### 3.1.4 VERSION 2.0, 2021-03-31

PCR review panel:	The Technical Committee of the International EPD® System. A full list of members available on <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 moderator or PCR committee, and were excused from the review.
Chair of the PCR review:	Maurizio Fieschi
Review dates:	2021-01-18 until 2021-02-18

#### 3.2 OPEN CONSULTATION

##### 3.2.1 VERSION 1.0

This PCR was available for open consultation from 2015-06-29 until 2015-09-15, during which any stakeholder was able to provide comments by posting on the PCR forum on [www.environdec.com](http://www.environdec.com) or by contacting the PCR moderator.

Stakeholders were invited via e-mail or other means to take part in the open consultation, and were encouraged to forward their comments to the PCR Moderator and to the Secretariat.

##### 3.2.2 VERSION 2.0

This PCR was available for open consultation from 2020-10-02 until 2020-12-01, during which any stakeholder was able to provide comments by posting on the PCR forum on [www.environdec.com](http://www.environdec.com) or by contacting the PCR moderator.

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.

### 3.3 EXISTING PCRS FOR THE PRODUCT CATEGORY

As part of the development of this PCR, existing PCRs were considered in order to avoid overlaps in scope. The existence of such documents was checked in the public PCR listings of the following programmes based on ISO 14025 or similar (such as the International EPD® System. [www.environdec.com](http://www.environdec.com)). No existing PCRs with overlapping scope were identified.

### 3.4 REASONING FOR DEVELOPMENT OF PCR

This PCR was developed in order to enable publication of Environmental Product Declarations (EPD) for this product category based on ISO 14025, ISO 14040/14044 and other relevant standards to be used in different applications and target audiences.

It was developed and published after the PCR Meat of mammals 2012:11 (CPC codes 2111 and 2113) and PCR Meat of poultry 2010:13 (CPC codes 2112 and 2114), for those meat products and preparations not covered by the PCR mentioned above.

### 3.5 UNDERLYING STUDIES

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

- PCR 2012:11 Meat of mammals, fresh, chilled or frozen (Version 3.11)
- PCR 2010:13 Meat of poultry, fresh, chilled or frozen (Version 3.11)
- FAO 2007. Meat processing technology for small to medium scale producers, RAP publication 2007/20, for the definition of the product category
- Cattle Model Working Group (CMWG), Baseline Approaches for the Cross-Cutting Issues of the Cattle Related Product Environmental Footprint Pilots in the Context of the Pilot Phase 2013-2016
- ISO 14067:2018; Greenhouse gases - Carbon footprint of products - Requirements and guidelines for quantification

Full references to the underlying studies are also given in Section 7.

## 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

The functional unit (FU) shall be defined as 1 kg of the product and its packaging. The weight of packaging is not included in the weight of the functional unit but it shall be included in the scope of the analysis. The reference flow in the Life Cycle Assessment shall be defined at the customer gate, at the shelf of the retailer or at the marketplace.

The functional unit shall be stated in the EPD. The environmental impact shall be given per functional unit. A description of the function of the product should be included in the EPD, if relevant.

### 4.2 REFERENCE SERVICE LIFE (RSL)

Not applicable for this product category.

### 4.3 SYSTEM BOUNDARY

The International EPD® System uses an approach where all attributional processes from “cradle to grave” should be included using the principle of “limited loss of information at the final product”. This is especially important in the case of business-to-consumer communication.

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 products is divided into three different life cycle stages:

- Upstream processes (from cradle-to-gate)
- Core processes (from gate-to-gate)
- Downstream processes (from gate-to-grave)

In the EPD, the environmental performance associated with each of the three life-cycle stages above shall be reported separately. 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 attributional processes are part of the product system and classified as upstream processes:

- *Production of meat and meat products.* All the phases related to animal husbandry such as farm and manure management, enteric fermentation (where relevant), feed cultivation and feed products preparation shall be considered, accordingly to the appropriate PCRs (mammals or poultry<sup>7</sup>, etc.) available at [www.environdec.com](http://www.environdec.com);
- *Production of minor ingredients* such as cheese, ham, breadcrumbs, vegetables, spices, additives, etc. used in the final product. This phase includes e.g. all the phases related to their production
- *Packaging production.* Primary and secondary packaging production shall be considered. Tertiary packaging should be considered, too if relevant

<sup>7</sup> The PCRs of reference can be: PCR Meat of mammals (CPC codes 2111 and 2113), 2012:11 and/or PCR Meat of poultry (CPC codes 2112 and 2114), 2010:13, latest published versions on Environdec website.

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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.

Any exclusion of life cycle stages and unit processes shall be justified.

#### 4.3.1.2. Core processes

The following attributional processes are part of the product system and classified as core processes:

- *External transportation* of the raw materials to the manufacturing plant
- *Slaughterhouse activities* (to be accounted accordingly to the PCRs of reference for mammals or poultry meat)
- *Preparation of the final product*: the main phases to be included (where applicable) in the product manufactory process are: ingredient preparation (e.g. washing, cutting), ingredients mix process, cooking, pasteurization (if it occurs), packaging, and final product storage
- *Packaging process*
- *Refrigeration* and/or freezing at storage phase, if necessary or applicable.
- *Maintenance* (e.g. of the machines) if relevant (e.g. more frequent than every three years)
- *Waste treatment* of waste generated during manufacturing.
- Impacts due to the production of electricity and fuels used in the core module.

Manufacturing processes not listed may also be included. The production of the raw materials used for production of all product parts shall be included.

The technical system shall not include:

- Manufacturing of production equipment, buildings, and other capital goods.
- Business travel of personnel.
- Travel to and from work by personnel.
- Research and development activities.

Any exclusion of life cycle stages and unit processes shall be justified.

#### 4.3.1.3. Downstream processes

The following attributional processes are part of the product system and classified as downstream processes:

- Transportation (refrigerated, if necessary) from preparation to an average retailer/distribution platform (e.g. an average platform can be considered, the hypothesis shall be presented in the declaration)
- Refrigeration and/or freezing at storage phase, if necessary or applicable
- Consumer use of the product, if necessary or applicable (e.g. cooking phase)
- End-of-life processes of any wasted part of the product (e.g. fat, skin, ...) at consumer home (domestic food losses), to be reported within the use stage, if applicable<sup>8</sup>
- End-of-life processes of packaging waste

The use of the product by the consumer shall be included within the downstream process. However, the use of the product is highly dependent on the consumer itself in terms of habits, cooking way and geography. Thus, it is suggested to declare several scenarios (of relevance for the scope of the EPD) and declare the results for the product use separately from the results of other parts of the life cycle.

Any exclusion of life cycle stages and unit processes shall be justified.

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<sup>8</sup> If any part of the product is potentially thrown away, for that parts the average end-of-life scenario for waste food should be considered, compliant with regulations in the relevant geographical area

## 4.3.2 OTHER BOUNDARY SETTING

### 4.3.2.1. Boundary towards nature

Boundaries to nature are defined as where flows of material and energy resources leaves nature and enters the technical system, i.e., the part of the environment that is made or modified by humans. Emissions to air, water and soil cross the system boundary when they are emitted from the product system.

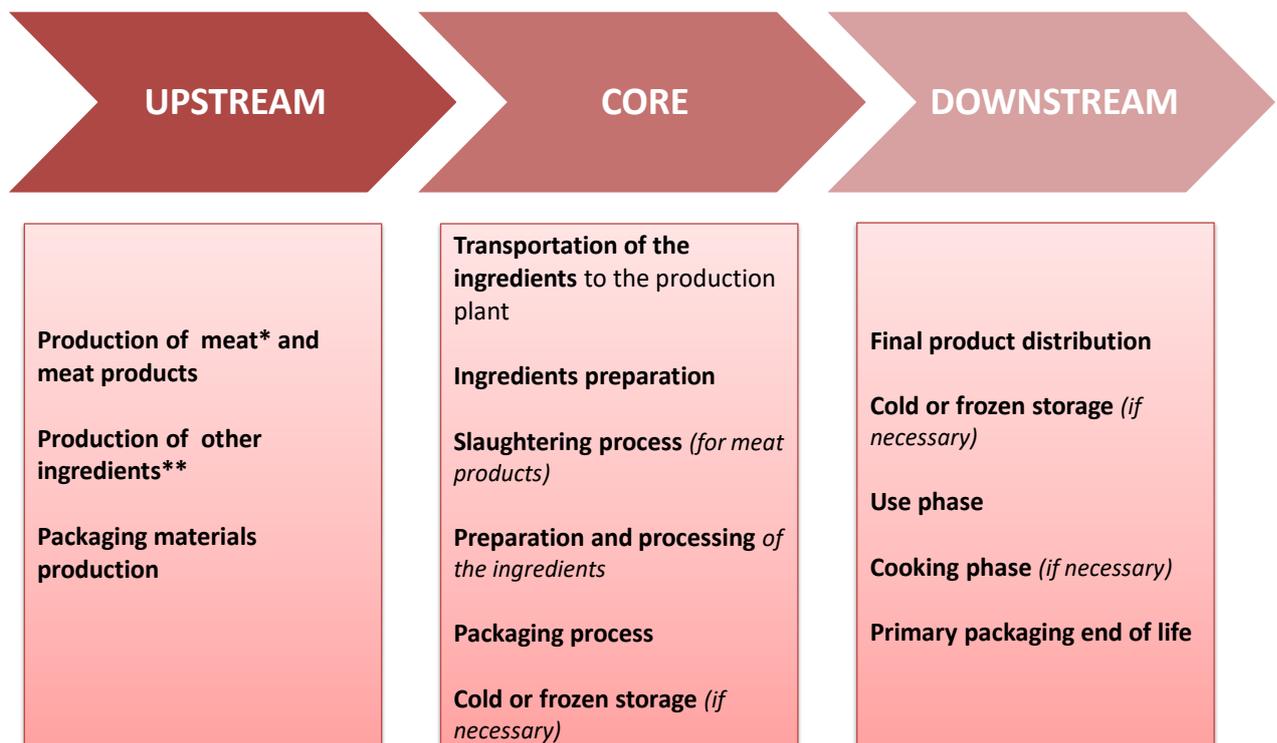
### 4.3.2.2. Boundaries in the life cycle

See Section 4.3.1. The EPD may present the information divided into additional sub-divisions.

### 4.3.2.3. Boundaries towards other technical systems

See Section 4.6.2.

## 4.4 SYSTEM DIAGRAM



\*The PCRs of mammals and poultry meat available at [www.environdec.com](http://www.environdec.com) should be considered for the assessment of this phase, if primary data are available.

\*\*Environmental impacts could be assessed using selected generic data. The PCRs of meat, vegetables, egg or cheese available at [www.environdec.com](http://www.environdec.com) should be considered for the assessment of this phase, if primary data are available.

Figure 3 System diagram illustrating the processes that are included in the product system, divided into upstream, core and downstream processes.

## 4.5 CUT-OFF RULES

Data for elementary flows to and from the product system contributing to a minimum of 99% of the declared environmental impacts shall be included (not including processes that are explicitly outside the system boundary as described in Section 4.3).

The check for cut-off rules in a satisfactory way is through the combination of expert judgment based on experience of similar product systems and a sensitivity analysis in which it is possible to understand how the un-investigated input or output could affect the final results.

## 4.6 ALLOCATION RULES

### 4.6.1 CO-PRODUCT ALLOCATION

The following step-wise procedure shall be applied for multifunctional products and multiproduct processes:

1. Allocation shall be avoided, if possible, by dividing the unit process into two or more sub-processes and collecting the environmental data related to these sub-processes.
2. If allocation cannot be avoided, the inputs and outputs of the system shall be partitioned between its different products or functions in a way that reflects the underlying physical relationships between them; i.e. they should reflect the way in which the inputs and outputs are changed by quantitative changes in the products or functions delivered by the system (for example, for animal breeding at farm, biophysical allocation shall be applied as outlined in PCR 2010:13 and PCR 2012:11, and the allocation of poultry slaughtering process shall follow mass allocation as outlined in PCR 2010:13, see Table 1)
3. Where physical relationships alone cannot be established or used as the basis for allocation (or they are too time consuming), other allocation procedures shall be used for key processes (for example, allocation in bovine slaughtering plants shall be based on economic value as outlined in PCR 2012:11, see Table 1).

PROCESS	MAIN PRODUCT AND CO-PRODUCTS	ALLOCATION INSTRUCTION
Animal breeding at farm	Meat	For mammals breeding, refer to PCR Meat of mammals 2012:11 (CPC codes 2111 and 2113) For poultry breeding, refer to PCR Meat of poultry 2010:13 (CPC codes 2112 and 2114)
Slaughtering and meat processing at plant	Meat, offal, blood, and other meat by-products	For mammals slaughtering phase, refer to PCR Meat of mammals 2012:11 (CPC codes 2111 and 2113) For poultry slaughtering phase, refer to PCR Meat of poultry 2010:13 (CPC codes 2112 and 2114)

Table 1 Allocation procedure for key processes in the product system.

The life cycle stages that deal with multifunctional processes are animal breeding at farm (Upstream processes) and slaughtering and meat processing at production plant (Core Processes). Please refer to the Section 4.10.1 and Section 4.10.2 for further details.

### 4.6.2 REUSE, RECYCLING, AND RECOVERY

In the framework of the International EPD® System, the methodological choices for allocation for reuse, recycling and recovery have been set according to the polluter pays principle (PPP). This means that the generator of the waste shall carry the full environmental impact until the point in the product's life cycle at which the waste is transported to a scrapyards or the gate of a waste processing plant (collection site). The subsequent user of the waste shall carry the environmental impact from the processing and refinement of the waste but not the environmental impact caused in the "earlier" life cycles. See General Programme Instruction for further information and examples.

## 4.7 DATA QUALITY REQUIREMENTS

An LCA calculation requires two different kinds of information:

- data related to the **environmental aspects** of the considered system (such materials or energy flows that enter the production system). These data usually come from the company that is performing the LCA calculation.
- data related to the **life cycle impacts** of the material or energy flows that enter the production system. These data usually come from databases.

Data on environmental aspects shall be as specific as possible and shall be representative of the studied process.

Data on the life cycle of materials or energy inputs are classified into three categories – specific data, selected generic data, and proxy data, 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, and data from other parts of the life cycle traced to the specific product system under study, e.g. materials or electricity provided by a contracted supplier that is able to provide data for the actual delivered services, transportation that takes place based on actual fuel consumption, and related emissions, etc.,
- **generic data** (sometimes referred to as “secondary data”), divided into:
  - **selected generic data** – data from commonly available data sources (e.g. commercial databases and free databases) that fulfil prescribed data quality characteristics for precision, completeness, and,
  - **proxy data** – data from commonly available data sources (e.g. commercial databases and free databases) that do not fulfil all of the data quality characteristics of “selected generic data”.

As a general rule, specific data shall always be used, if available, after performing a data quality assessment. It is mandatory to use specific data for the core processes as defined above. For the upstream processes, downstream processes, and infrastructure, generic data may also be used if specific data are not available.

Any data used should preferably represent average values for a specific reference year. However, the way these data are generated could vary, e.g. over time, and in such cases, they should have the form of a representative annual average value for a specified reference period. Such deviations should be declared.

### 4.7.1 RULES FOR USING GENERIC DATA

The attributional LCA approach in the International EPD® System forms the basic prerequisites for selecting generic data. To allow the classification of generic data as “selected generic data”, they shall fulfil selected prescribed characteristics for precision, completeness, and representativeness (temporal, geographical, and technological), such as:

- the reference year must be as current as possible and preferably assessed to be representative for at least the validity period of the EPD,
- the cut-off criteria to be met on the level of the modelled product system are the qualitative coverage of at least 99% of energy, mass, and overall environmental relevance of the flows,
- completeness in which the inventory data set should, in principle, cover all elementary flows that contribute to a relevant degree of the impact categories, and
- the representativeness of the resulting inventory in the given temporal, technological, and geographical reference should, as a general principle, be better than  $\pm 5\%$  of the environmental impact of fully representative data.

Section 4.8 provides a list of recommended databases/data sets to be used for generic data.

If selected generic data that meets the requirements of the International EPD® System are not available as the necessary input data, proxy data may be used and documented. The environmental impacts associated with proxy data shall not exceed 10% of the overall environmental impact from the product system.

The EPD may include a data quality declaration to demonstrate the share of specific data, selected generic data and proxy data for the environmental impacts.

## 4.8 RECOMMENDED DATABASES FOR GENERIC DATA

Table 2 lists recommended databases for generic data. Please note that this listing does not imply that other data that fulfil the data quality requirements may not be used and that data quality assessment shall also be performed for the data sets in the recommended database by an LCA practitioner.

PROCESS	GEOGRAPHICAL SCOPE	DATABASE
Feed cultivation (agricultural products)	Global	Ecoinvent <a href="http://www.ecoinvent.org">www.ecoinvent.org</a> Agri-footprint <a href="http://www.agri-footprint.com">www.agri-footprint.com</a> Agribalyse (French database from ADEME) <a href="https://www.ademe.fr/en/expertise/alternative-approaches-to-production/agribalyse-program">https://www.ademe.fr/en/expertise/alternative-approaches-to-production/agribalyse-program</a>
	Europe	
Steel	Global	Steel World Steel <a href="http://www.worldsteel.org">www.worldsteel.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>
Electricity	Global	Data combined with IEA (International Energy Agency) statistics on electricity generation mixes for nations, regions etc.
Fuels	Global	International Energy Agency <a href="http://www.iea.org/Textbase/stats/index.asp">www.iea.org/Textbase/stats/index.asp</a>
Aluminium	Global	Ecoinvent <a href="http://www.ecoinvent.org">www.ecoinvent.org</a> EAA (European Aluminum Association) <a href="http://www.aluminium.org">www.aluminium.org</a>
Plastics	Global	Plastics Europe (Industry data) <a href="http://www.plasticseurope.org">www.plasticseurope.org</a>
Chemicals	Global	Ecoinvent <a href="http://www.ecoinvent.org">www.ecoinvent.org</a>
Transports	Global	Ecoinvent <a href="http://www.ecoinvent.org">www.ecoinvent.org</a> or regional alternatives
Waste management	Global	Ecoinvent <a href="http://www.ecoinvent.org">www.ecoinvent.org</a>

Table 2 Recommended databases for generic data.

**Note that credits (for avoided impacts) shall be excluded in data used from databases.** Data from databases using data calculated with a consequential approach using system expansion and credits are not permitted in LCA for EPDs. If no other data are available for a certain input all negative parameters shall be set to zero.

The EPD may include a data quality declaration to demonstrate the share of specific data, selected generic data and proxy data for the environmental impacts.

If relevant, the EPD may include a reference to the database(s) used.

## 4.9 IMPACT CATEGORIES AND IMPACT ASSESSMENT

The EPD shall declare the default impact categories as described in the General Programme Instructions. The characterisation models and factors to use for the default impact categories are available on [www.environdec.com/indicators](http://www.environdec.com/indicators) and shall be updated on a regular basis based on the latest developments in LCA methodology and ensuring the market stability of EPDs. The source and version of the characterisation models and the factors used shall be reported in the EPD. Alternative regional life cycle impact assessment methods

and characterisation factors are allowed to 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.

## 4.10 OTHER CALCULATION RULES AND SCENARIOS

### 4.10.1 UPSTREAM PROCESSES

The following requirements apply to the upstream processes:

- *Animal husbandry.* Since meat is one of the most relevant ingredients in the final product, environmental impact related to animal rearing has to be assessed through proper data, preferably specific. Within the system “animal husbandry” it is necessary to estimate all the related environmental burdens, starting from feed cultivation (including the related emissions in air and water due to fertilizers’ use) and feed products preparation, to farm and manure management (including entering fermentation, if applicable). Considering that there are several sources of origin for feed products, an average field for each feed product (based on the quantity used) should be defined. If primary data are available and collected, animal husbandry impacts shall be assessed according to the *Product Category Rules for Meat of Mammals (2012:11)* or *Meat of Poultry (2010:13)*, depending on the meat type. PCRs used must be declared in the LCA and in the EPD.

If no primary data is available, secondary data shall be used to estimate the environmental impact related to raw materials production.

- Production of other ingredients. If the production of the final product employs other ingredients, environmental impacts could be assessed using selected generic data. The PCRs of vegetables, cheese, grain mill or bakery products available at [www.environdec.com](http://www.environdec.com) should be considered for the assessment of this phase, if primary data are available. As said before, PCRs used must be declared in the LCA and in the EPD.
- Data referring to processes and activities upstream in a supply chain over which an organisation has 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.
- The transport of main parts and components along the supply chain to a distribution point (e.g. a stockroom or warehouse) where the final delivery to the manufacturer can take place should be based on the actual transportation mode, distance from the supplier, and vehicle load.
- In case specific data is lacking, selected generic data may be used. If this is also lacking, proxy data may be used.
- For the electricity used in the upstream processes, electricity production impacts shall be accounted for in this priority when specific data are used in the upstream processes:
  1. Specific electricity mix as generated, or purchased, from an electricity supplier, demonstrated by a Guarantee of Origin (or similar, where reliability, traceability, and the avoidance of double-counting are ensured) as provided by the electricity supplier. If no specific mix is purchased, the residual electricity mix from the electricity supplier shall be used.<sup>9</sup>
  2. National residual electricity mix or residual electricity mix on the market
  3. National electricity production mix or electricity mix on the market.

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

- Packaging: specific data shall be used for the consumer packaging production if it is under the direct control of the organization or if the environmental impact related to the consumer packaging production is more than 10% of the total product environmental indicators. In other cases, generic data may be used. When consumer packaging shows the organization's logo, the LCA report should report the exerted/non exerted direct control on the production of consumer packaging by the organization.

### 4.10.2 CORE PROCESSES

The following requirements apply to the core processes:

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<sup>9</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 production mix of the electricity supplier.

- Slaughtering and meat processing phase. After husbandry phase, animals are sent to slaughterhouse. Environmental impact related to slaughtering phase has to be taken into account through proper data, preferably primary. If no primary data is available, secondary data shall be used to estimate the environmental burden of this phase.

The activities of this phase may be divided into three stages:

- a. Slaughtering
- b. Meat (or meat by-products) cutting
- c. Meat processing and meat products preparation

Slaughterhouse processes (including meat or meat by-products cutting, stages a and b) produce multiple outputs, including food for humans and pets, feed for livestock, hides and skins for leather industry, materials for chemical industry, etc.

If primary data are available and collected, slaughterhouse impacts shall be assessed according to the *Product Category Rules for Meat of Mammals (2012:11)* or *Meat of Poultry (2010:13)*<sup>10</sup>, depending on the meat type. PCRs used must be declared in the LCA and in the EPD. For the stage c), meat processing and meat products, allocation of the environmental burden shall be done by (physical) mass allocation considering the total production of the plant.

- Specific data shall be used for the manufacture of the main product as well as for on-site generation of steam, heat, electricity, etc., where relevant.
- For the electricity used in the core processes, electricity production impacts 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, where reliability, traceability, and the avoidance of double-counting are ensured) as provided by the electricity supplier. If no specific mix is purchased, the residual electricity mix from the electricity supplier shall be used.<sup>11</sup>
  2. National residual electricity mix or residual electricity mix on the market
  3. National electricity production mix or electricity mix on the market.

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

- 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.
- Waste treatment processes of manufacturing waste should be based on specific data, if available.

#### 4.10.3 DOWNSTREAM PROCESSES

The following requirements apply to the downstream processes:

- The use of electricity in the region/country where the product is used (as specified in the geographical scope of the EPD) shall be accounted for in the following priority:
  1. National residual electricity mix or residual mix on the market
  2. National electricity production mix or electricity mix on the market

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

- Cold or frozen domestic conservation shall be taken into consideration; refer to sections about COLD OR FROZEN STORAGE for rules and details.
- Use phase scenarios for cooking phase shall be taken into consideration and reported separately as suggested in Section 5.4.5; refer to sections about MEAT COOKING for rules and details.
- The transport of the product to the customer shall, as a first option, be based on the actual transportation distances, which should reflect the actual situation to the best extent possible. The following priority should be used:

<sup>10</sup> all the cited PCRs are available at the International EPD System website: [www.environdec.com](http://www.environdec.com)

<sup>11</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 production mix of the electricity supplier.

1. Actual transportation distances and types. If primary data are available, transport may also be modelled referring to the PCR 2005:15 *Road transport services of freight of food products and meals*<sup>12</sup> of the International EPD® System.
  2. Calculated as the average distance of a product of that product type transported by different means of transport modes.
  3. Calculated by means of default data: 500 km transportation by truck from the distribution centre to the retailer.
- 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.

For the calculation of packaging end-of-life environmental impact, a typical scenario of the area in which the product is mainly distributed shall be considered. The scenario considered must be declared in the EPD. Any recommendations for the responsible and correct recycling of packaging materials, as well as recommendations for other waste treatment of product parts, if relevant, shall be provided.

#### USE PHASE SCENARIO – HOME CONSERVATION

If the product needs a cold storage for preserving its shelf life, the environmental impacts related to this process shall be estimated. The following expression shall be adopted to calculate energy consumption for home conservation. This expression comes from <http://www.lcafood.dk>.

Electric energy due to the cold storage shall be evaluated by the following formula:

$$E_p = E_s \times \frac{100}{u} \times V_p \times t$$

Where:

- $E_s$  is the specific electricity consumption of the cooling room (kWh per m<sup>3</sup> per day)
- $u$  is the degree of utilization of the storage room (%)
- $V_p$  is the volume of the considered product (functional unit = 1 kg).
- $t$  is the time of the storage (days).

Values have to be set as follow:

- $E_s$  = 0,59 kWh per m<sup>3</sup> per day in the product is stored in a **cold place (5°C)**  
= 0,63 kWh per m<sup>3</sup> per day in the product is stored in a frozen place (-20°C)
- $u$  = 50%
- $V_p$  = 0,001 m<sup>3</sup> (if more specific data are available, the hypotheses shall be included in the EPD).
- $t$  = shelf life of the product (days).

The time of cold or frozen storage used for the study must be declared in the EPD.

Different default values could be used but they have to be presented in the EPD.

The used electricity mix in the region/country where the product is sold and then used shall be approximated as the OECD electricity mix. For non-OECD countries, in order to adopt a suitable region- or country-specific electricity mix (reflecting approximately the region(s)/countries' share) a similar precision is required. The electricity mix used shall be documented, if significant.

#### USE PHASE SCENARIO – MEAT PRODUCT COOKING

If the meat product object of the EPDs needs to be cooked before eating, refer to the following generic rules to evaluate the impact of the cooking phase.

Since the impacts of cooking could be quite variable, the following data about the electricity consumption shall be adopted to estimate the impact in a "comparable"<sup>13</sup>:

- Cooking in the pan on stove: 5.5 kW per hour of operation

<sup>12</sup> <http://www.environdec.com/en/PCR/Detail/?Pcr=5750>

<sup>13</sup> Supporting Technical Paper of Double Pyramid 11/10/2016 • Version: 7; [www.barillacfn.com](http://www.barillacfn.com)

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- Boiling in the pot on stove: 3 kW per hour of operation
- Cooking in the oven (with 15 minutes of pre-heating): 2.2 kW per hour of operation
- Cooking in microwave oven: 1.4 kW per hour of operation

Different default value could be used but they shall be presented in the EPD. The cooking time considered in the study must be declared in the EPD. As presented in Section 4.3.1.3, the use-phase of the product is highly dependent on the consumer itself in terms of habits, cooking way and geography, thus it is suggested to make an evaluation of environmental impacts related to cooking phase and include them as additional information.

The used electricity mix in the region/country where the product is sold and then used shall be approximated as the OECD electricity mix. For non-OECD countries, in order to adopt a suitable region- or country-specific electricity mix (reflecting approximately the region(s)/countries' share) a similar precision will be required. The electricity mix used shall be documented, if significant.

## 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 via [www.environdec.com](http://www.environdec.com).

As a general rule the EPD content:

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

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

### 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 subject to the same verification procedure.

### 5.2 UNITS AND QUANTITIES

The following requirements apply for units and quantities:

- The International System of Units (SI units) shall be used, 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.
- Three significant figures<sup>14</sup> should be adopted for all results. The number of significant digits shall be appropriate and consistent.
- 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:
  - Only contain values or the letters "INA" (Indicator Not Assessed). It is not possible to specify INA for mandatory indicators. INA shall only be used for voluntary parameters that are not quantified because no data is available.<sup>15</sup>
  - Contain no blank cells, hyphens, less than or greater than signs or letters (except "INA").
  - Use the value 0 only for parameters that have been calculated to be zero.

<sup>14</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  $1.2 \cdot 10^2$  and  $1.2 \cdot 10^{-2}$ .

<sup>15</sup> This requirement does not intend to give guidance on what indicators are mandated ("shall") or voluntary.

- 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 product should 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)
- Content declaration (see Section 5.4.4)
- Environmental performance (see Section 5.4.5)
- Additional environmental information (see Section 5.4.6)
- References (see Section 5.4.9)

The following information shall be included, when applicable:

- Information related to Sector EPDs (see Section 5.4.7)
- 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,
- Name and logotype of EPD owner,
- The text “Environmental Product Declaration” and/or “EPD”
- *Programme: The International EPD<sup>®</sup> System, [www.environdec.com](http://www.environdec.com),*
- *Programme operator: EPD International AB*
- Logotype of the International EPD<sup>®</sup> System,
- EPD registration number as issued by the programme operator<sup>16</sup>,
- *Date of publication (issue): 20XX-YY-ZZ,*
- *Date of revision: 20XX-YY-ZZ, when applicable,*
- *Date of validity; 20XX-YY-ZZ*
- 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,

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<sup>16</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.

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## 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 mandatory statement from ISO 14025: “EPDs within the same product category but from different programmes may not be comparable.”
- A statement that the EPD owner has the sole ownership, liability and responsibility of the EPD
- Information about verification<sup>17</sup> and reference PCR in a table with the following format and contents:

Product category rules (PCR): <i>&lt;name, registration number, version and UN CPC code(s)&gt;</i>
PCR review was conducted by: <i>&lt;name and organisation of the review chair, and information on how to contact the chair through the programme operator&gt;</i>
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
Third party verifier: <i>&lt;name, organisation and signature of the third party verifier&gt;</i>  <i>In case of certification bodies:</i> Accredited by: <i>&lt;name of the accreditation body and accreditation number, if applicable&gt;</i> .  <i>In case of individual verifiers:</i> Approved by: The International EPD® System Technical Committee, supported by the Secretariat
Procedure for follow-up of data during EPD validity involves third party verifier: <input type="checkbox"/> Yes <input type="checkbox"/> No

## 5.4.3 PRODUCT INFORMATION

The product 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 production site,
- Product identification by name, and an unambiguous identification of the product by standards, concessions or other means,
- Identification of the product according to the UN CPC scheme system. Other relevant codes for product 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) or
  - Australian and New Zealand Standard Industrial Classification (ANZSIC),

<sup>17</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.

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- Description of the product, its application/intended use and technical functions, e.g. expected service life time,
- Geographical scope of the EPD, i.e., for which geographical location(s) of use and end-of-life the product's performance has been calculated,
- Functional unit,
- Reference service life (RSL), if applicable,
- 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 if the EPD system boundary is "cradle-to-gate", "cradle-to-gate with options" or "cradle-to-grave",
- Information on which life cycle stages are not considered (if any), with a justification of the omission,
- Relevant websites for more information or explanatory materials.

This section may also include:

- Name and contact information of organisation carrying out the underlying LCA study,
- Additional information about the underlying LCA-based information, such as assumptions, cut-off rules, data quality and allocation.

#### 5.4.4 CONTENT DECLARATION

The content declaration shall have the form of a list of materials and chemical substances including information on their environmental and hazardous properties. The gross weight of material shall be declared in the EPD at a minimum of 99 % of one unit of product.

Information on the hazardous properties of materials and chemical substances should follow the requirements given in the latest revision of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)<sup>18</sup>, issued by United Nations or national or regional applications of the GHS.

As an example, the following regulations should be used for EPDs intended to be used in the European Union:

- Regulation (EC) No 1907/2006 of the European parliament and of the council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures

##### 5.4.4.1. Information about recycled materials

Not relevant for this product category.

##### 5.4.4.2. Information about packaging

As packaging is strongly connected with the product, the producer shall provide information about packaging in the EPD, when applicable. Packaging may be classified as:

- Distribution Packaging: packaging designed to contain one or more articles or packages, or bulk materials, for the purposes of transport, handling and/or distribution (ISO 21067-1:2016, Par. 2.2.6)
- Consumer Packaging: packaging constituting, with its content, a sales unit for the final user or consumer at the point of retail (ISO 21067-1:2016, Par. 2.2.7).

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<sup>18</sup> The GHS document is available on [www.unece.org](http://www.unece.org).

Consumer packaging is generally the outcome of eco-design processes, or other activities, under direct control of the organisation. Many critical categories with strict legal requirements belong to consumer packaging category like food contact packaging and pharmaceutical packaging. The type and function of packaging shall be reported in the EPD.

A statement of the source of the materials (pre-consumer or post-consumer) shall be presented in the EPD when the packaging is made in whole or in part by recycled materials.

## 5.4.5 ENVIRONMENTAL PERFORMANCE

### 5.4.5.1. Environmental impacts

The EPD shall declare the environmental impact indicators, per functional unit and per life cycle stage (except that the use stage shall be reported separately, and not be included in the declaration of total), using the default impact categories, characterisation models and factors available on [www.environdec.com/indicators](http://www.environdec.com/indicators). The source and version of the characterisation models and the factors used shall be reported in the EPD. Alternative regional life cycle impact assessment methods and characterisation factors are allowed to 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 indicators for resource use based on the life cycle inventory (LCI) listed in *Table 3* shall be declared per functional unit or declared unit, and per life cycle stage (except that the use stage shall be reported separately, and not be included in the declaration of total results).

PARAMETER		UNIT	UPSTREAM	CORE	DOWNSTREAM (without use stage)	TOTAL (without use stage)	Use stage
Primary energy resources – Renewable	Use as energy carrier	MJ, net calorific value					
	Used as raw materials	MJ, net calorific value					
	TOTAL	MJ, net calorific value					
Primary energy resources – Non- renewable	Use as energy carrier	MJ, net calorific value					
	Used as raw materials	MJ, net calorific value					
	TOTAL	MJ, net calorific value					
Secondary material		kg					
Renewable secondary fuels		MJ, net calorific value					
Non-renewable secondary fuels		MJ, net calorific value					
Net use of fresh water		m <sup>3</sup>					

*Table 3 Indicators describing use of primary and secondary resources.*

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Notes:

- In order to identify the primary energy used as an energy carrier (and not used as raw materials), the parameter may be calculated as the difference between the total input of primary energy and the input of energy resources used as raw materials.
- Energy content of biomass used for feed or food purposes shall not be considered.
- The net use of fresh water does not constitute a “water footprint” as potential environmental impacts due to the water use in different geographical locations is not captured. For this indicator:
  - Evaporation, transpiration, product integration, release into different drainage basins or the sea, displacement of water from one water resource type to another water resource type within a drainage basin (e.g. from groundwater to surface water) is included.
  - In-stream water use is not included.
  - For water used in closed loop processes (such as cooling system) and in power generation only the net water consumption (such as reintegration of water losses) should be considered.
  - Seawater shall not be included<sup>19</sup>.
  - Tap water or treated water (e.g. from a water treatment plant), or wastewater that is not directly released in the environment (e.g. sent to a wastewater treatment plant) are not elementary water flows, but intermediate flows from a process within the technosphere.
  - Additional transparency in terms of geographical location, type of water resource (e.g. groundwater, surface water), water quality and temporal aspects may be included as additional information.

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 General Programme Instructions. When the amount of waste or the output flows is from the life cycle inventory (LCI) are declared, the indicators in Table 4 and Table 5 shall be reported per functional unit, and per life cycle stage (except that the use stage shall be reported separately, and not be included in the declaration of total results).

PARAMETER	UNIT	UPSTREAM	CORE	DOWNSTREAM (without use stage)	TOTAL (without use stage)	Use stage
Hazardous waste disposed	kg					
Non-hazardous waste disposed	kg					
Radioactive waste disposed	kg					

Table 4 Indicators describing waste production.

<sup>19</sup> It may be relevant to include seawater if it is used to obtain energy from it, or it is the only source of water in a definite site. This may be displayed separately, e.g. as “seawater for desalination”.

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PARAMETER	UNIT	UPSTREAM	CORE	DOWNSTREAM (without use stage)	TOTAL (without use stage)	Use stage
Components for reuse	kg					
Material for recycling	kg					
Materials for energy recovery	kg					
Exported energy, electricity	MJ					
Exported energy, thermal	MJ					

Table 5 Indicators describing output flows.

Notes:

- The parameters are calculated on the gross amounts leaving the system boundary of the product system in the LCI. If e.g. there is no gross amount of “exported energy, electricity” leaving the system boundary, this indicator is set to zero,
- The parameter “Materials for energy recovery” does not include materials for waste incineration. Waste incineration is a method of waste processing, when  $R1 < 60\%$  (European Guideline on R1 energy interpretation), and is allocated within the system boundary.
- In case there are never any flows of these types leaving the system boundary for a product category, the indicators may be removed by the PCR.

#### 5.4.6 ADDITIONAL INFORMATION

Under this heading information that is not part of the LCA but identified as an important environmental aspect of the product or information asked for by customers and other stakeholders, shall be declared. Any literature reference or methodology used to acquire and describe additional environmental information shall be openly accessible and made available to the verifier.

The following issues should be addressed, if relevant and applicable.

- Environmental improvement made at farm level or other parts of the production chain (e.g. some progresses made at the farm level to decrease environmental burdens)
- Recyclability of primary packaging: recommendations for the responsible and correct recycling of packaging materials and the potential environmental impacts and benefits of recycling of primary packaging

#### 5.4.7 INFORMATION RELATED TO SECTOR EPDS

For sector EPDs, the following information shall also be included:

- a list of the contributing manufacturers that the Sector EPD covers,
- a description of how the selection of the sites/products 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 product is an average that is not available for purchase on the market.

#### 5.4.8 DIFFERENCES VERSUS PREVIOUS VERSIONS

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

- a description of the differences versus previously published versions, e.g. a description of the percentage change in results and the main reason for the change
- a revision date on the cover page

## 5.4.9 REFERENCES

A reference section shall include a list of references, including for example references to:

- Underlying LCA studies
- The name, CPC code and version number of the used PCR
- The General Programme instructions of the International EPD® System
- Other documents that verify and complement the EPD®
- Instruction for recycling, if relevant
- The source and version of the characterisation models and the factors used shall be reported in the EPD.

## 5.4.10 EXECUTIVE SUMMARY IN ENGLISH

For EPDs published in another language than English, an executive summary in English shall be included.

The executive summary should contain relevant summarised information related to the programme, product, environmental performance, additional information, information related to sector EPDs, references and differences versus previous versions.

## 6 GLOSSARY

°C	degree Celsius
CEN	European Committee for Standardisation
CO <sub>2</sub>	Carbon dioxide
CPC	Central product classification
EPD	Environmental product declaration
g	grams
GHG	Greenhouse gases
GWP	Global Warming Potential
INA	Indicator Not Assessed
ISO	International Organization for Standardization
J	Joule
kg	kilogram
kWh	kilowatt hour
LCA	Life cycle assessment
LCI	Life Cycle Inventory
m <sup>3</sup>	cubic metres
MJ	Megajoule
PCR	Product Category Rules
SI	The International System of Units
SO <sub>2</sub>	Sulphur dioxide
WSF	Water Scarcity Footprint
CPC	Central product classification
EPD	Environmental product declaration
ISO	International Organization for Standardization
kg	kilogram
LCA	Life cycle assessment
PCR	Product Category Rules
SI	The International System of Units
SO <sub>2</sub>	Sulphur dioxide
UN	United Nations

## 7 REFERENCES

Cattle Model Working Group (CMWG), Baseline Approaches for the Cross-Cutting Issues of the Cattle Related Product Environmental Footprint Pilots in the Context of the Pilot Phase 2013-2016

CEN (2013), EN 15804:2012+A1:2013, Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.

EPD International (2017) General Programme Instructions for the International EPD® System. Version 3.0, dated 2017-12-11. [www.environdec.com](http://www.environdec.com).

EPD International (2017), PCR 2012:11 Meat of mammals, fresh, chilled or frozen (Version 3.11)

EPD International (2017), PCR 2010:13 Meat of poultry, fresh, chilled or frozen (Version 3.0)

Heinz G., et.al. (FAO) 2007. Meat processing technology for small to medium scale producers, RAP publication 2007/20, for the definition of the product category (Section 2.2.1)

ISO (2000), ISO 14020:2000, Environmental labels and declarations – General principles

ISO (2004), ISO 8601:2004 Data elements and interchange formats – Information interchange – Representation of dates and times

ISO (2006a), ISO 14025:2006, Environmental labels and declarations – Type III environmental declarations – Principles and procedures

ISO (2006b), ISO 14040:2006, Environmental management – Life cycle assessment – Principles and framework

ISO (2006c), ISO 14044: 2006, Environmental management – Life cycle assessment – Requirements and guidelines

ISO (2013), ISO/TS 14067:2013, Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification and communication

ISO (2014), ISO 14046:2014, Environmental management – Water footprint – Principles, requirements, and guidelines

ISO (2017), ISO 21930:2017, Sustainability in buildings and civil engineering works -- Core rules for environmental product declarations of construction products and services

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

## 8 VERSION HISTORY OF PCR

### VERSION 1.0, 2016-05-26

Original version. This PCR was developed and published after the PCR Meat of mammals (CPC codes 2111 and 2113), 2012:11, version 2.0, 2013-07-22 and PCR Meat of poultry (CPC codes 2112 and 2114), 2010:13, version 2.0, 2015-10-20, for those meat products and preparations not covered by the PCR mentioned above.

### VERSION 1.1, 2019-02-15

Updated in accordance with GPI 3.0 and new PCR basic module.

### VERSION 1.11, 2019-02-15

Updated to clarified terms of use; some editorial changes were made too by the Technical Secretariat.

### VERSION 2.0, 2021-03-31

- Compliance with the General Programme Instructions, Version 3.01
- Use of the latest basic module as template: PCR Basic Module CPC 29 (version 3.02)
- Clarification regarding allocation rules in alignment with PCR 2012:11 Meat of mammals and PCR 2010:13 Meat of Poultry
- Clarification regarding home conservation and cooking phase evaluation
- Minor editorial changes

### VERSION 2.0.1, 2025-05-13

- The validity period of the PCR was extended by 6 months, until 2026-03-31, due to the new PCR development for food and beverage products.

PRESERVES AND PREPARATIONS OF MEAT (INCLUDING MEAT OFFAL OR BLOOD)  
PRODUCT CATEGORY CLASSIFICATION: UN CPC 2118

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