PRODUCT CATEGORY RULES (PCR)
DATE 2019-09-06

FABRICATED STEEL PRODUCTS, EXCEPT CONSTRUCTION PRODUCTS, MACHINERY AND EQUIPMENT

PRODUCT CATEGORY CLASSIFICATION: UN CPC 412, 422, 429

2014:10
VERSION 2.12
VALID UNTIL: 2022-10-04

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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[1] 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. 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.

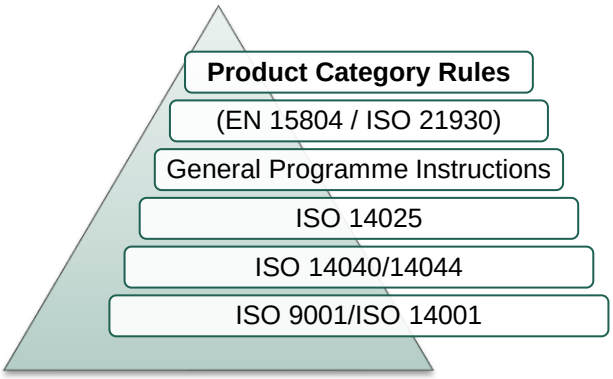

Figure 1 Illustration PCR in relation to the hierarchy of standards and other documents.

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. 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 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.

[1] 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:	Fabricated steel products, except construction products, machinery and equipment
Registration number and version:	2014:10, version 2.12
Programme:	The International EPD® System
Programme operator:	EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden. Website: www.environdec.com E-mail: info@environdec.com
PCR moderator:	Gorka Benito Alonso, IK INGENIERIA, g.benito@ik-ingenieria.com
PCR Committee:	Vicinay Cadenas IK INGENIERIA
Date of publication and last revision:	2019-09-06 (Version 2.12) For a version history, see Section 7
Valid until:	2022-10-04
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 www.environdec.com for up-to-date information and the latest version.
Standards conformance:	▪ General Programme Instructions of the International EPD® System, version 3.0, based on ISO 14025 and ISO 14040/14044 ▪ PCR Basic Module, CPC Division 42 Fabricated metal products, version 3.01, dated 2018-11-06
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 Fabricated steel products, except construction products, machinery and equipment the declaration of this performance by an EPD. The product category

corresponds to UN CPC codes are 412 (for finished products), 422 (Tanks, reservoirs and containers of iron, steel or aluminium) and UN CPC 429 (Other fabricated metal products).

Fabricated steel products must be considered those **finished steel products** that will not be further processed and are considered a finished consumer product. Naval chains, bearing steels, tool steels, shafts for automotive industry, tubes, pipes and hollow profiles, etc., fall under the scope of this PCR.

For semi-finished steels or intermediate Special steels that will be further processed to become a finished consumer product, like ingots, blooms, slabs, plates, rolled products (wire rods, bars, flats, billets), cold finished (cold-drawn, peeling/turning and straightening) and basic forged products (bars and flats) in carbon steels, free cutting steels, alloyed steels, spring steels, microalloyed steels, cold forming steels, bearing steels…the ”PCR 2015:03 Basic iron or steel products, except construction products” apply.

Steel construction products are not included inside the scope of this PCR, because of the existence of a PCR for them in “PCR 2012:01 Construction products and Construction services” which is compliant with the European standard EN 15804:2012+A1:2013 (Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products).

Here is a resume of the existing PCRs in www.environdec.com for steel products:

STEEL PRODUCT TYPE	SECTOR	APPLICABLE PCR
Basic / Intermediate / Semi-finished	NOT CONSTRUCTION	PCR 2015:03 Basic iron or steel products & Special steels, except construction steel products UN CPC codes 4112+412 for NOT construction products
Final / Finished	NOT CONSTRUCTION	PCR 2014:10 Fabricated steel products, except construction products, machinery and equipment UN CPC codes 412+422+429 NOT construction products
Basic / Intermediate / Semi-finished + Final / Finished	CONSTRUCTION	PCR 2012:01 Construction products and construction services (EN 15804 compliant) UN CPC codes 412+421+422+423+429 for construction products

The products included in the product group are fabricated steel products, except construction products, machinery and equipment. The product category is defined under ISIC – CPC’s classifications:

Section: 4 - Metal products, machinery and equipment
Division: 41 Basic metals"
Group "411”,"Basic iron and steel"
Group "412"," Products of iron or steel” only for CPCs that could be considered final products, like:
"4124","Bars and rods, hot-rolled, of iron or steel"
"41241","Bars and rods, hot-rolled, in irregularly wound coils, of iron or non-alloy steel"

"41242","Other bars and rods of iron or non-alloy steel, not further worked than forged, hot-rolled, hot-drawn or extruded, but including those twisted after rolling"
"41243","Bars and rods, hot-rolled, in irregularly wound coils, of alloy steel"
"41244","Bars and rods of alloy steel, not further worked than forged, hot-rolled, hot-drawn or extruded (except bars or rods of high-speed steel or silico-manganese steel)"
"4125","Angles, shapes and sections, not further worked than hot-rolled, hot-drawn or extruded, of iron or non-alloy steel; sheet piling of steel; welded angles, shapes and sections, of steel; railway or tramway track construction material of steel"
"41251","Angles, shapes and sections, not further worked than hot-rolled, hot-drawn or extruded, of iron or non-alloy steel"
"41252","Sheet piling of iron or steel and welded angles, shapes and sections of iron or steel"
"41253","Railway or tramway track construction material of iron or steel"
"4126","Bars, rods, angles, shapes and sections, cold-processed or further worked, of iron or steel; angles, shapes and sections, hot-rolled, hot-drawn or extruded, of alloy steel; steel wire"
"41261","Bars and rods, cold-formed, cold-finished or further worked, of iron or non-alloy steel"
"41262","Angles, shapes and sections, cold-formed, cold-finished or further worked, of iron or non-alloy steel"
"41263","Wire of iron or non-alloy steel"
"41264","Bars and rods, cold-formed or cold-finished, of alloy steel (except bars or rods of high-speed steel or silico-manganese steel)"
"41265","Bars and rods of alloy steel, further worked than hot- or cold-processed"
"41266","Angles, shapes and sections, of alloy steel"
"41267","Wire of alloy steel"
"4127","Bars and rods of high-speed steel and silico-manganese steel; hollow drill bars and rods of steel"
"41271","Bars and rods of high-speed steel"
"41272","Bars and rods of silico-manganese steel"
"41273","Hollow drill bars and rods, of steel"
"4128","Tubes, pipes and hollow profiles, of steel"
"41281","Line pipe of a kind used for oil or gas pipelines, seamless, of steel"
"41282","Casing, tubing and drill pipe, of a kind used in the drilling for oil or gas, seamless, of steel"
"41283","Other tubes and pipes, of circular cross-section, seamless"
"41284","Tubes and pipes, of non-circular cross-section and hollow profiles, seamless, of steel"
"41285","Line pipe of a kind used for oil or gas pipelines, welded, of steel"
"41286","Casing and tubing, of a kind used in the drilling for oil or gas, welded, of steel"
"41287","Other tubes and pipes, of circular cross-section, welded, of steel"
"41288","Tubes and pipes, of non-circular cross-section, welded, of steel"
"41289","Other tubes and pipes, such as open seam, riveted or similarly closed"
"4129","Tubes, pipes and hollow profiles of cast-iron and cast-steel and related fittings; tube or pipe fittings of steel other than cast"
"41291","Tubes, pipes and hollow profiles of cast-iron; tubes and pipes of centrifugally cast-steel"
"41292","Tube or pipe fittings, of cast-iron or of cast-steel"
"41293","Tube or pipe fittings, of steel other than cast-steel"

Division: 42 - Fabricated metal products, except machinery and equipment
Group "422","Tanks, reservoirs and containers of iron, steel or aluminium"
Class "4221","Reservoirs, tanks, vats and similar containers (other than for compressed or liquefied gas), of iron, steel or aluminium, of a capacity exceeding 300 litres, not fitted with mechanical or thermal equipment"
Class "4222","Containers for compressed or liquefied gas, of iron, steel or aluminium"

Group "429","Other fabricated metal products"
Class "4291","Domestic metal products"
~~"42911","Sinks, wash-basins, baths and other sanitary ware and parts thereof, of iron, steel, copper or aluminium"~~ >> *Specific" PCR 2012:10 Sanitary ware of iron, steel, copper or aluminium" must be followed*
"42912","Table, kitchen or other household articles and parts thereof, of iron, steel, copper or aluminium; cooking or heating apparatus of a kind used for domestic purposes, non-electric, of copper; pot scourers and scouring or polishing pads, gloves and the like, of iron or steel, copper or aluminium; iron or steel wool; hand-operated mechanical appliances, weighing 10 kg or less, used in the preparation, conditioning or serving of food or drink"
"42913","Knives (except for machines) and scissors, and blades therefor"
"42914","Razors and razor blades (including razor blade blanks in strips)"
"42915","Other articles of cutlery; manicure or pedicure sets and instruments"
"42916","Spoons, forks, ladles, skimmers, cake-servers, fish-knives, butter-knives, sugar tongs and similar kitchen or table ware"
Class "4292","Hand tools (including hand tools of a kind used in agriculture, horticulture or forestry, hand saws, files, pliers and metal cutting shears, hand-operated spanners, blow-lamps and clamps); interchangeable tools for hand tools or for machine tools, including dies for drawing or extruding metal, and rock drilling or earth boring tools; knives for machines; plates, sticks, tips and the like for tools, unmounted, of sintered metal carbides or cermets"
Class "4293","Tanks, casks, drums, cans, boxes and similar containers (other than for compressed or liquefied gas) of iron, steel or aluminium, of a capacity not exceeding 300 litres, not fitted with mechanical or thermal equipment; stoppers, caps and lids (including crown corks), capsules for bottles, threaded bungs, bung covers, seals and other packing accessories, of base metal"
Class "4294","Metal fasteners, springs and miscellaneous articles made from metal wire"
"42941","Stranded wire, ropes, cables, plaited bands, slings and the like, of iron or steel, not electrically insulated"
"42942","Stranded wire, cables, plaited bands and the like, of copper or aluminium, not electrically insulated"
"42943","Cloth, grill, netting and fencing, of iron or steel wire; expanded metal of iron or steel"
"42944","Nails, tacks, staples (except staples in strips), screws, bolts, nuts, screw hooks, rivets, cotters, cotter-pins, washers and similar articles, of iron, steel, copper or aluminium"
"42945","Springs and leaves for springs, of iron or steel"
"42946","Barbed wire of iron or steel; twisted hoop or single flat wire, and loosely twisted double wire, of a kind used for fencing, of iron or steel"

Class "4295","Wire, rods, tubes, plates, electrodes and similar products, of base metal or of metal carbides, coated or cored with flux material, of a kind used for soldering, brazing, welding or deposition of metal or of metal carbides; wire and rods, of agglomerated base metal powder, used for metal spraying"
Class "4299","Other metal goods"
"42991","Chain and parts thereof, of iron or steel; chain and parts thereof, of copper"
"42992","Padlocks and locks, of base metal; clasps and frames with clasps, incorporating locks, of base metal; keys and parts thereof, of base metal; base metal fittings for furniture, doors, saddlery and the like"
"42993","Armoured or reinforced safes, strong-boxes and doors and safe deposit lockers for strong-rooms, cash or deed boxes and the like, of base metal"
"42994","Paper trays, paper rests, pen trays, office-stamp stands and similar office or desk equipment, of base metal, other than office furniture"
"42995","Fittings for loose-leaf binders or files; letter clips, letter corners, paper clips, indexing tags and similar office articles, of base metal; staples in strips, of base metal"
"42996","Statuettes and other ornaments of base metal; photograph, picture or similar frames of base metal; mirrors of base metal"
"42997","Sewing needles, knitting needles, bodkins, crochet hooks, embroidery stilettos and similar articles, for use in the hand, of iron or steel; safety pins and other pins of iron or steel n.e.c.; clasps, frames with clasps, buckles, buckle-clasps, hooks, eyes, eyelets and the like, of base metal, of a kind used for clothing, footwear, awnings, handbags, travel goods or other made-up articles; tubular or bifurcated rivets, of base metal; beads and spangles of base metal"
"42998","Ships' propellers and blades therefor"
"42999","Metal goods n.e.c."

In case of providing guidance for the same products as PCR 2015:03, this PCR should be referenced for harmonization of data quality requirements.

According to the General Programme Instructions v 2.5, several products of the same type can be included in the same EPD. The following requirements must be met:

- Similar products with differences between the mandatory impact indicators lower than ±10% could be presented using the impacts of a representative product. A variation range description shall be presented in the declaration;
- Similar products with differences between the mandatory impact indicators higher than ±10% could be presented in the same declaration documents but using separate columns or tables.

For the purpose of these requirements "*similar products*" means products covered by the same PCR and produced by the same company with same core process.

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 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

PCR review panel:	The Technical Committee of the International EPD® System. A full list of members available on www.environdec.com. The review panel may be contacted via info@environdec.com. 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:	Paola Borla
Review dates:	2017-08-18 until 2017-09-12

3.2 OPEN CONSULTATION

3.2.1 VERSION 1.0

2013-01-17 until 2013-02-28 (combined PCR for both construction and non-construction products that were later split into two different documents)

2014-01-31 until 2014-03-01 (second consultation of final draft PCR for non-construction products)

3.2.2 VERSION 2.0

This PCR was available for open consultation from 2017-04-07 until 2017-06-07, during which any stakeholder was able to provide comments by posting on the PCR forum on 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. The following stakeholders provided comments during the open consultation, and agreed to be listed as contributors to the PCR and at www.environdec.com:

- Rob Rouwette, star2see

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:

- International EPD® System. www.environdec.com.

For Steel construction products, PCR 2012:01 Construction products and construction services (combined PCR & PCR Basic Module) shall be applied.

For Crude steel and/or basic iron steel products including Special steels (except those destined to become construction products), the PCR 2015:03 Basic iron or steel products, except construction products shall be applied.

No other PCRs for this product category were found in other programmes acting in accordance with ISO 14025.

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.

There is a need in the market as expressed by some steel producers to have an available PCR for products not covered by the PCR 2012:01 for construction products. That is why this PCR creation was accepted.

3.5 UNDERLYING STUDIES

No underlying studies have been used in the development of this PCR.

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/DECLARED UNIT

A declared unit is used in place of the functional unit, when the exact product function is not established or unknown. Should be applied when an EPD covers one or more life cycle stages by information modules (i.e.: cradle to gate and cradle to gate with options) and when the EPD is not based on full life cycle (cradle to grave).

The declared unit is 1 tonne (1000 kg) of fabricated steel product. The declared unit shall be specified in the EPD.

If a “cradle-to-grave” scope is taken for the LCA, also 1 tonne (1000 kg) of fabricated steel product installed must be used.

If relevant, a voluntary additional functional unit could be declared in addition to 1000 kg: 1m2 of fabricated steel product, if this better aligns with the format of sales of products in the product category.

The declared unit is independent of the product characteristics in terms of diameters, length, thickness or other geometrical characteristics.

If the product being declared is coated or galvanized, this would have implications for the declared unit, as the amount of coating or protective metal per tonne of product depends on the geometrical characteristics. The coated or galvanized method and materials used should be included in the LCA as it influences the outcomes significantly, and requirements from “PCR 2011:16 Corrosion protection of fabricated steel products” shall be taken. This shall be explained in the EPD.

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-gate or cradle-to-grave.

This PCR allows optional scope of the LCA reported in the EPD. The following scopes are available:

- a “cradle-to-gate” EPD; based on LCA information from Upstream and Core life cycle stages
- a “cradle-to-grave” EPD; covering all life cycle stages

A “cradle-to-grave” EPD however, requires a development of detailed information that defines the function of the product and scenarios for handling the usage and end of life stage in order to meet comparability within the specific application of the product group. If there are many possibilities for the use phase of one single product, the most relevant use phase scenario (relevant in terms of the percentage of type of use given to that specific product) should be taken with the End of life stage for that scenario. So in a “cradle-to-grave” EPD, all life cycle stages are mandatory.

The EPD shall specify which EPD-type is declared (“cradle-to-gate” of “cradle-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 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)

4.3.1.1. Upstream processes

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

- Extraction and production of raw material for all main parts and components of the product
- Recycling process of recycled material used in the product, if relevant
- Transportation of raw material to the upstream processes
- The manufacturing of primary and secondary packaging, if relevant

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

- Transportation of the steel to the core process where the final steel product will be manufactured.
- Transportation to the core processes of materials used as auxiliary materials in the core production
- Manufacturing process for main parts and components (including core process related material consumption, energy production and consumption, emissions to air, water and soil...)
- Assembly of the final product
- 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. A minimum of 99% of the total weight of the declared product including packaging 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.

4.3.1.3. Downstream processes

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

- Transportation from preparation to an average retailer/distribution platform
- End-of-life processes of any wasted part of the product
- End-of-life processes of packaging waste, if relevant

4.3.2 OTHER BOUNDARY SETTING

4.3.2.1. Boundary towards nature

Boundaries to nature are defined as flows of material and energy resources from nature into the system. Emissions to air, water and soil cross the system boundary when they are emitted from or leaving 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 3.

4.4 SYSTEM DIAGRAM

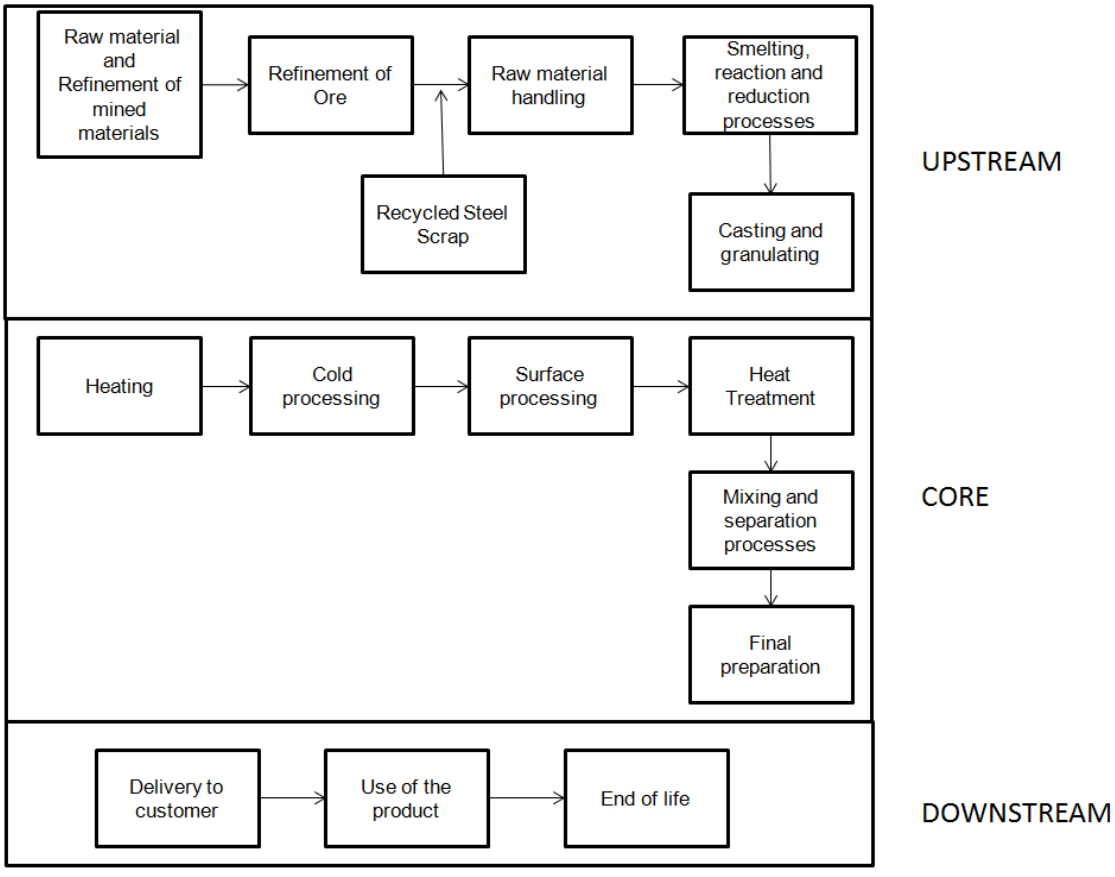

Figure 2 *System diagram illustrating the processes that are included in the product system, divided into upstream, core and downstream processes.*

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.
3. If not possible, allocation problems shall be solved by the economic value of the products. This is not recommended as economic issues and changes in the value-market do not represent the real environmental impacts of the input/output flows, so if economic allocation is used, a specific sensitivity analysis shall be provided to the verifier and the monitoring of the relationship between results and current economic value shall be documented in the LCA report and EPD.

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 scrapyard 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.

Generic data should especially be used in cases where 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.

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 ±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 1 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	RECOMMENDED DATASET	DATABASE
Steel, Iron ore and Pig Iron	-	-	World Steel Association www.worldsteel.org
Electricity	-	-	Data combined with IEA (International Energy Agency) statistics on electricity generation mixes for nations, regions, etc. http://www.iea.org/statistics/
			European Reference Life Cycle Data System (ELCD) http://eplca.jrc.ec.europa.eu/ELCD3/
Aluminium	-	-	EAA (European Aluminium Association) -http://www.alueurope.eu/
Plastics	-	-	PE Plastics Europe (former APME Association of Plastics Manufacturers in Europe) www.plasticseurope.org

Chemicals	-	-	European Commission Environment http://ec.europa.eu/enterprise/sectors/chemicals/reach/index_en.htm
Transports	-	-	European Reference Life Cycle Data System (ELCD) http://eplca.jrc.ec.europa.eu/ELCD3 /
Waste management	-	-	European Reference Life Cycle Data System (ELCD) http://eplca.jrc.ec.europa.eu/ELCD3/
Some reference databases for LCA are the following below: ▪ Ecoinvent database: contains international industrial life cycle inventory data on energy supply, resource extraction, material supply, chemicals, metals, agriculture, waste management services, and transport services. http://www.ecoinvent.ch/ ▪ European reference Life-Cycle Database (ELCD) http://elcd.jrc.ec.europa.eu/ELCD3/ The Greenhouse Gas Protocol Initiative. http://www.ghgprotocol.org/			

Table 1 Recommended databases for generic data.

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 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:

- 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 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.[2]
    2. National residual electricity mix or residual electricity mix on the market
    3. National electricity production mix or electricity mix on the market.

[2] 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.

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:

- Specific data shall be used for the assembly of the product and for the manufacture of main parts 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.[3]
    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

Downstream processes are optional when developing EPD following this PCR. A “cradle-to-grave” EPD will require a development of detailed information that defines the function of the product and scenarios for handling the usage and end of life stage in order to meet comparability within the specific application of the product group.

As the objective of this PCR is to cover a large variety of Steel products, a specific use phase scenario could not be defined. That’s why the following information is given only as general guidelines for developing downstream stage scenarios. Each “cradle-to-grave” EPD will need detailed information about the scenarios taken into account (based on these guidelines or on specific scenarios defined by the company to represent the certified product downstream stage).

The following requirements apply to the downstream processes, if included:

- Data for the use stage are usually based on scenarios, but specific data should be used when available and relevant.
- Data on the pollutant emissions from the use stage 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 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.

[3] 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.

- The transport of the product to the customer shall be described in the reference PCR, which should reflect the actual situation to the best extent possible. The following priority should be used:
    1. Actual transportation distances and types.
    2. Calculated as the average distance of a product of that product type transported by different means of transport modes.
    3. Calculated as a fixed long transport, such as 1 000 km transport by lorry or 10 000 km by airplane, according to product type.
- 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.

Recommendations for recycling of the product and packaging shall be given, as well as recommendations for other waste treatment of product parts if relevant.

Key assumptions regarding the end-of-life stage shall be documented.

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

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^3)
  - 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[4] 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 26th, 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.[5]

[4] 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 $1.2*10^2$ and $1.2*10^{-2}$.

[5] This requirement does not intend to give guidance on what indicators are mandated (“shall”) or voluntary.

- 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.
- 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 □)

5.4.1 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® System, www.environdec.com,*
- *Programme operator: EPD International AB*
- Logotype of the International EPD® System,
- EPD registration number as issued by the programme operator[6],
- *Date of publication (issue): 20XX-YY-ZZ,*
- *Date of revision: 20XX-YY-ZZ*, when applicable,
- *Date of validity; 20XX-YY-ZZ*

[6] 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*."
- A statement of conformity with ISO 14025,

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*
- 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[7] and reference PCR in a table with the following format and contents:

Product category rules (PCR): PCR 2014:10 Fabricated steel products, except construction products, machinery and equipment, version 2.1, UN CPC 412, 422, 429.
PCR review was conducted by: The Technical Committee of the International EPD® System. Review chair: Massimo Marino. Contact via info@environdec.com.
Independent third-party verification of the declaration and data, according to ISO 14025:2006: ☐ EPD process certification ☐ EPD verification
Third party verifier: *<name, organisation and signature of the third party verifier>* *In case of certification bodies:* Accredited by: *<name of the accreditation body and accreditation number, if applicable>.* *In case of individual verifiers:* 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: ☐ Yes ☐ 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,

[7] 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.

- 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),
- Recognised standards may be used when referring to specific technical issues (SAE, ISO/TS 4949, EN 10027, UNS, ASTM, SAE, JIS, DIN, GB standard, etc.).
- 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 or declared 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)[8], 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

For steel products for which material standards exist (ISO, EN, ASTM etc.), the elements specified in the standard compose the minimum elements that shall be declared.

[8] The GHS document is available on www.unece.org.

The content declaration does not apply to proprietary materials and substances such as those covered by exclusive legal rights including patent and trademarks.

When a product is made by recycled materials (100% or less) the producer could provide information about this in the EPD. In order to avoid any misunderstanding about which material could be considered “recycled material”, the guidance given in ISO 14021 must be taken into account. In brief:

- Only pre-consumer or post-consumer materials (scraps) could be considered in the accounting of the recycled materials;
- Materials coming from scraps reutilisation (such as rework, regrind or scrap generated in a process and capable of being reclaimed within the same process that generated it) must not be considered as recycled content.

5.4.4.1. Information about recycled materials

When a product is made in whole or in part with recycled materials, the provenience of the materials (pre-consumer or post-consumer) shall be presented in the EPD as part of the content declaration.

To avoid any misunderstanding about which material may be considered “recycled material”, the guidance given in ISO 14021 shall be taken into account. In brief, the standard states that:

- only pre-consumer or post-consumer materials (scraps) shall be considered in the accounting of the recycled materials, and
- materials coming from scrap reutilisation (such as rework, regrind, or scrap generated in a process and capable of being reclaimed within the same process that generated it) shall not be considered as recycled content.

5.4.5 ENVIRONMENTAL PERFORMANCE

5.4.5.1. Environmental impacts

The indicators related to potential environmental impact listed in Table 2 shall be declared per functional unit or declared unit, and per life cycle stage.

PARAMETER		UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Global warming potential (GWP)	Fossil	kg CO_2 eq.				
	Biogenic	kg CO_2 eq.				
	Land use and land transformation	kg CO_2 eq.				
	TOTAL	kg CO_2 eq.				
Acidification potential (AP)		kg SO_2 eq.				
Eutrophication potential (EP)		kg PO_4^{3-} eq.				
Formation potential of tropospheric ozone (POCP)		kg C_2H_4 eq.				
Abiotic depletion potential – Elements		kg Sb eq.				
Abiotic depletion potential – Fossil fuels		MJ, net calorific value				
Water scarcity potential		m^3 eq.				

Table 2 Indicators describing potential environmental impacts[9].

[9] Please check www.environdec.com for the latest list of default impact categories, units and characterisation factors as they may have been updated compared to this table.

Notes:

- Abiotic depletion potential is calculated and displayed as two separate indicators. ADP-fossil fuels include all fossil resources, while ADP-elements include all non-renewable material resources.

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.

PARAMETER		UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
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^3				

Table 3 Indicators describing use of primary and secondary resources.

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

- 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 or declared unit, and per life cycle stage.

PARAMETER	UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Hazardous waste disposed	kg				
Non-hazardous waste disposed	kg				
Radioactive waste disposed	kg				

Table 4 Indicators describing waste production.

PARAMETER	UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
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.

5.4.5.4. Other environmental indicators

Not additional “Other environmental indicators” are needed. If considered relevant, EN 15804 indicators may be added to the EPD.

5.4.6 ADDITIONAL INFORMATION

The EPD may include various specific relevant issues for the product or the process as specific information about the use and end-of-life (if downstream processes are reported). Also some aspects can be relevant for the proper use and maintenance of the product to improve the environmental performance or constructive and mechanic characteristics for the product (i.e. proper maintenance and service of the product, information on recycling ...)

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

This section shall include a list of references, including the General Programme Instructions (including version number), standards and PCR (registration number, name and version).

- The underlying LCA
- The name, CPC code and version number of the PCR used
- Other documents that verify and complement the EPD®
- Instruction for recycling, if relevant
- The General Programme instructions of the International EPD® System

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

CO_2	Carbon dioxide
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_2	Sulphur dioxide
UN	United Nations

7 REFERENCES

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

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

8 VERSION HISTORY OF PCR

VERSION 1.0, 2014-05-23

Original version, developed in parallel with the PCR for Fabricated steel construction products.

VERSION 2.0, 2017-10-04

Updated version after validity expired:

- Compliance with to the General Programme Instructions, Version 2.5.
- Major editorial changes and use of PCR template by the Guidance for PCR development
- Added a new CPC code for more steel finished products coverage of the PCR

VERSION 2.1, 2019-01-18

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

VERSION 2.11, 2019-09-06

- Clarified terms of use
- Editorial changes

VERSION 2.12, 2021-10-15

- Validity period extended, in line with Section 5.5.2.1 of the GPI.

FABRICATED STEEL PRODUCTS, EXCEPT CONSTRUCTION PRODUCTS, MACHINERY AND EQUIPMENT
PRODUCT CATEGORY CLASSIFICATION: UN CPC 412, 422, 429