EPD
INTERNATIONAL EPD SYSTEM

FABRICATED METAL PRODUCTS, EXCEPT CONSTRUCTION PRODUCTS

PRODUCT CATEGORY CLASSIFICATION: UN CPC 412, 414, 416, 42

PCR 2023:01
VERSION 2.0.0

VALID UNTIL 2029-07-29

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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 Environmental Product Declarations (EPD)[1] according to ISO 14025:2006, ISO 14040:2006, ISO 14044:2006, and product-specific standards, such as EN 15804 and ISO 21930 for construction products. EPDs are voluntary documents for a company or an industry association to present transparent, consistent, and verifiable information about the environmental performance of their products (goods or services).

The General Programme Instructions (GPI), publicly available on www.environdec.com, includes the rules for the overall administration and operation of the programme and the basic rules for developing EPDs registered in the programme. A PCR complements the GPI and the normative standards by providing specific rules, and guidelines for developing an EPD for one or more specific product categories (see Figure 1), thereby enabling the generation of consistent EPDs within a product category. A PCR should not repeat the rules and guidelines of the GPI, but include additions, specifications and deviations to the rules set in the GPI. As such, a PCR shall be used together with the GPI.

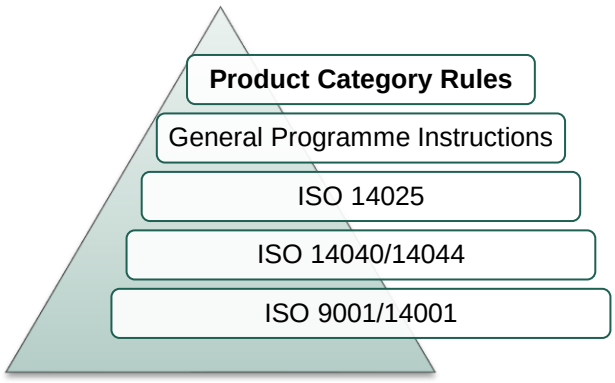

Figure 1. The hierarchy between PCRs, standards, and other documents.

The present PCR uses the following terminology:

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

For definitions of other terms used in the document, see the GPI and normative standards.

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

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

[1] Termed type III environmental declarations in ISO 14025.

2 GENERAL INFORMATION

2.1 ADMINISTRATIVE INFORMATION

Name:	Fabricated metal products, except construction products
Registration number and version:	PCR 2023:01, Version 2.0.0
Programme:	EPD INTERNATIONAL EPD SYSTEM
Programme operator:	EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden. Website: www.environdec.com E-mail: support@environdec.com
PCR Moderator:	Gorka Benito Alonso, IK INGENIERIA, g.benito@ik-ingenieria.com
PCR Committee:	Aceros Inoxidables Olarra, S.A, CAF MIIRA, Curtin University, Global Steel Wire, Metalsa, S.A.P.I., RISE Research Institutes Of Sweden, Sidenor Special Steels, Tubos Reunidos Group Slu, Vicinay Sestao S.L., World Steel Association, IK INGENIERIA
Publication date:	2025-07-29 See Section 9 for a version history of the PCR.
Valid until:	2029-07-29 The validity may change. See www.environdec.com for the latest version of the PCR and the latest information on its validity and transition periods between versions.
Development and updates:	The PCR has been developed following ISO 14027, including public consultation and review. The rules for the development and updating processes are described in Section 9 of the GPI. The PCR is valid for a pre-determined time period to ensure that it is updated at regular intervals. When the PCR is about to expire, the PCR Moderator shall initiate a discussion with the Secretariat on if and how to proceed with updating the PCR and renewing its validity. A PCR may be updated before it expires, based on changes in normative standards or provided significant and well-justified proposals for changes or amendments are presented. When there has been an update of the PCR, the new version should be used to develop EPDs. For small updates (change of third-digit version number), the previous version is normally immediately removed from the PCR library on www.environdec.com and there is no transition period. For medium updates (change of second-digit version number), the previous version of the PCR is valid in parallel during a transition period of at least 90 days, but not exceeding its previously set validity period. For large updates (change of first-digit version number), the previous version is valid in parallel during a transition period of at least 180 days, but not exceeding its previously set validity period. Stakeholder feedback on PCRs is very much encouraged. Any comments on this PCR may be sent directly to the PCR Moderator and/or the Secretariat during its development or during its period of validity.

Standards and documents conformance:	General Programme Instructions of the International EPD System, version 5.0.1, based on ISO 14025 and ISO 14040/14044.[2]
PCR language(s):	At the time of publication, this PCR was available in English. If the PCR is available in several languages, these are available on www.environdec.com. 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 metal products, except construction products, machinery and equipment, and the declaration of this performance by an EPD. The product category corresponds to UN CPC codes 412 (for finished products of iron or steel), 414 (for copper, nickel, aluminium, alumina, lead, zinc and tin, unwrought), 416 (for other non-ferrous metals and articles thereof), and all the section 42 (fabricated metal products, except machinery and equipment).

Fabricated metal products shall be considered those finished metal products that will not be further processed and are considered a finished consumer product. Naval chains, tools, shafts for automotive industry, tubes, pipes and hollow profiles, cooking utensils, machine metal parts, etc., fall under the scope of this PCR. Note that bearings, bearing units, and parts thereof, do not fall under the scope of this PCR (PCR 2023:03 Bearings, bearings units and parts thereof, shall instead be used).

For basic not finished metals, semi-finished metals or intermediate metals 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 or alloyed metals, PCR 2015:03 Basic iron or steel products, except construction products (for UN CPC 411 and 412) or other PCRs for other metals (e.g., for UN CPC 413 and 415 PCR) apply.

Construction metal products are not included in the scope of this PCR. These are instead covered by PCR 2019:14 Construction products, which is compliant with the European standard EN 15804 (Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products).

2.2.2 THE UN CPC CODE OF THE PRODUCT SHALL BE SPECIFIED IN THE EPD.

2.2.3 GEOGRAPHICAL SCOPE

This PCR may be used globally.

2.2.4 EPD VALIDITY

An EPD becomes valid as of its version date (see Section 8.4.5 of the GPI). When an EPD is originally published, the validity period is normally five years starting from the version date or until the EPD has been de-registered from the International EPD System. Shorter validity periods are also accepted, for example if decided by the EPD owner.

For rules on when an EPD shall be updated and re-verified during its validity, see Section 6.8.1 of the GPI. For validity periods in case of updates of EPDs, see Section 6.8 of the GPI.

The version date and the period of validity shall be stated in the EPD.

Publication of a new version of the PCR or the GPI does not affect the validity of already published EPDs.

[2] Some rules influencing EPD development are independent of the GPI version referred to in the PCR. For example, the latest rules on EPD verification procedures in the GPI shall be followed within 90 days of its publication. See Section 5.1 in the GPI for a description of the four categories of rules and when they shall be followed.

3 REVIEW AND BACKGROUND INFORMATION

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

3.1 OPEN CONSULTATION

3.1.1 VERSION 1.0.0

This PCR was available for open consultation from 2022-02-23 until 2022-04-22, during which any stakeholder was able to provide comments by contacting the PCR Moderator and/or the Secretariat.

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

- Clare Broadbent, World Steel Association
- Nicholas Avery, Eurofer
- Karin Östman, Jernkontoret

3.1.2 VERSION 2.0.0

This PCR update was available for open consultation from 2025-01-30 until 2025-03-30, during which any stakeholder was able to provide comments by contacting the PCR Moderator and/or the Secretariat.

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. No stakeholders provided comments during the open consultation and agreed to be listed as contributors in the PCR and on www.environdec.com.

3.2 PCR REVIEW

3.2.1 VERSION 1.0.0

PCR review panel:	The Technical Committee of the International EPD System. A full list of members is available on www.environdec.com. The review panel may be contacted via support@environdec.com Members of the Technical Committee were requested to state any potential conflict of interest with the PCR Committee, and if there were conflicts of interest they were excused from the review.
Chair of the PCR review:	Hüdai Kara
Review dates:	2022-05-16 until 2022-11-16

3.2.2 VERSION 2.0.0

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 support@environdec.com Members of the Technical Committee were requested to state any potential conflict of interest with the PCR Committee and were excused from the review.
Chair of the PCR review:	Daniel Olausson (Chair) and Rui Wang (Co- chair)
Review dates:	2025-04-21 until 2025-07-28

3.3 EXISTING PCRS FOR THE PRODUCT CATEGORY

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

- International EPD System. www.environdec.com.
- AENOR Global EPD. https://www.aenor.com/
- EPD Norge. https://www.epd-norge.no/
- BRE Global Ltd https://bregroup.com/
- Institut Bauen und Umwelt (IBU): https://epd-online.com
- SCS Global Services https://www.scsglobalservices.com/
- UNE Spanish standardisation body
- Product Environmental Footprint Category Rules (PEFCR) for Metal Sheets

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

Name of PCR/standard, incl. registration number	Programme/standardisation body	Version number	Scope
UNE 36904-1:2018 Iron and steel industry. Environmental product declarations. Product category rules for steel products for concrete and steel structures. Part 1: Hot rolled non-alloy steel long products from electric furnace	UNE is the Spanish standardisation body	2018-11-28	This standard establishes the basic product category rules (PCR) for Type III environmental declarations for basic hot-rolled construction steel products marketed in Spain and Portugal (geographical scope considered).
UNE 36904-2:2018 Iron and steel industry. Environmental product declarations. Product category rules for steel products for concrete and steel structures. Part 2: Processed products and prestressing system applicators	UNE is the Spanish standardisation body	2018-11-28	This standard establishes the basic product category rules (PCR) for Type III environmental declarations for processed products construction steel products marketed in Spain and Portugal (geographical scope considered).

NPCR 013 Steel and aluminium construction products	EPD NORGE	06.10.2021	LCA basis for developing EPDs for finished steel construction products manufacturers
Building metals	IBU	V6	LCA basis for developing EPDs for Building metals
Structural steels	IBU	V7	LCA basis for developing EPDs for Structural steels
Thin walled profiles and profiled panels of metal	IBU	V6	LCA basis for developing EPDs for walled profiles and profiled panels of metal
Reinforcing Steel	IBU	V6	LCA basis for developing EPDs for Reinforcing Steel
Steel pipes for pressure applications	IBU	V6	LCA basis for developing EPDs for Steel pipes for pressure applications
Product Environmental Footprint Category Rules for Metal Sheets for Various Applications	Product Environmental Footprint (PEF)	Version: 28/06/2019	Steel (CPA: C24.1), Lead (CPA: C24.4.3), Copper (C24.4.4), Aluminium (CPA: C24.4.2)

3.4 REASONING FOR DEVELOPMENT OF PCR

This PCR was developed to enable publication of EPDs for the product category defined in Section 2.2.1 based on ISO 14025 and ISO 14040/14044. The PCR enables different practitioners to generate consistent results when assessing the environmental impact of products of the same product category, and thereby it supports comparability of products within a product category.

3.5 UNDERLYING STUDIES USED FOR PCR DEVELOPMENT

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

- EPD International (2024) Tubos Reunidos Group S.L. SEAMLESS LOW ALLOY STEEL TUBE FOR OIL COUNTRY TUBULAR GOODS (O.C.T.G.) APPLICATIONS, PLAIN END. Registration number EPD-IES-0015558:004. Available on www.environdec.com
- EPD International (2023) Tubos Reunidos Group S.L. SEAMLESS LOW CARBON STEEL TUBE FOR PIPELINES, PRESSURE EQUIPMENT AND MECHANICAL APPLICATIONS. Registration number EPD-IES-0011702:001. Available on www.environdec.com
- EPD International (2024) UCIN ALUMINIO SAU. Aluminium products. Registration number EPD-IES-0011502:002. Available on www.environdec.com
- EPD International (2024) CAF miira. EA4T axles. Registration number EPD-IES-0016916:001. Available on www.environdec.comEPD International (2023) CAF miira. MONOBLOC WHEELS. Registration number EPD- EPD-IES-0011217:002. Available on www.environdec.com
- EPD International (2024) SEPR Le pontet. Cruciform® ER1682 RX electrofused alumina-zirconia-silica . Registration number EPD-IES-0012259:002. Available on www.environdec.com
- EPD International (2024) SAINT-GOBAIN INDIA PRIVATE LIMITED-SEPR India. ER 1711® fused cast Alumina Zirconia Silica (AZS) refractory products. Registration number EPD-IES-0016475:002. Available on www.environdec.com
- EPD International (2024) UAB VYTROLMA. Steel cabinet without coating products. Registration number EPD-IES-0016005:001. Available on www.environdec.com
- L EPD International (2024) UAB VYTROLMA. COATED STEEL CABINETS. Registration number EPD-IES-0016004:001. Available on www.environdec.com
- EPD International (2024) Welded Tube of Canada Corp. Energy Tubular Products. Registration number EPD-IES-0007775:003. Available on www.environdec.com
- EPD International (2023) Corinth Pipeworks S.A. Oil Country Tubular Goods (OCTG). Registration number EPD-IES-0008916:002. Available on www.environdec.com

4 LCA METHOD

This section provides rules for the LCA method used to develop an EPD for the product category as defined in Section 2.2.1. The basic rules of the LCA method are set in Annex A of the GPI, and this section only includes additions, specifications and deviations to the rules set in the GPI. Guidance and examples of applying the LCA method are also available on www.environdec.com/methodology.

4.1 MODELLING APPROACH

See Section A.1 of the GPI.

4.2 DECLARED/FUNCTIONAL UNIT

In this PCR, a declared unit or a functional unit may be used. A declared unit is used when the function or end-use of the product is unknown or cannot be established.

The declared unit shall be defined as **1 tonne (1000 kg) of finished metal product plus its packaging, if relevant (the weight of the packaging is not included in this 1000kg).** The reference flow corresponds to the declared unit and shall be defined at the manufacturer gate. The declared unit shall be specified in the EPD. The declared unit is independent of the production characteristics in terms of diameter ranges or other geometrical characteristics.

For some metal products where the function could be precisely defined (in terms of its use scenario, dimensions, RSL and technical characteristics), a **Functional nit (FU)** may be used. The reference flow corresponds to the functional unit and shall be defined as a cradle to grave scope. In these cases, the specific function, the dimensions and technical characteristics shall be specified in the EPD. For example, if the product is a steel tank that is used to store liquid, a functional unit of container capable of safely transporting and storing 1, 000 kg of chemical liquid over a distance of 300 km could be used to allow comparison with plastic tanks. The functional unit is not independent of the production characteristics in terms of diameter ranges or other geometrical characteristics and thus should be appropriately described in the EPD.

4.2.1 TECHNICAL SPECIFICATION, LIFESPAN AND REFERENCE SERVICE LIFE (RSL)

See Section A.2.1 of the GPI.

In addition to the GPI, the mass needed for 1 unit of finished product at factory gate may also be specified.

4.3 SYSTEM BOUNDARY

As this PCR covers a huge variety of metal products (steel, aluminium, copper, nickel, lead, zinc, etc.) as well as other non-ferrous metals, the detailed use and end of life scenarios are unknown and could not be defined.

That is why this PCR allows two scopes of the LCA reported in the EPD:

- "Cradle to grave with options", covering stages A1-A3 and C1 to C4 (But not stages A4, A5 and B1 to B7) of Section 4.3.1, in accordance with GPI Section A.3.
  - Transportation, installation and use stage is excluded under this approach because the broad scope of the PCR (any metal product for any application) does not allow to define specific criteria for the use phase scenarios. This will require detailed information and parameters to define the function of the finished product and scenarios for handling the installation and use stages, in order to meet comparability within the specific products. Finished metal products could have any application (automotive, construction, naval, pipes, boilers, containers, scientific sector, electronics etc.) and the environmental impact of those in use stages should be defined, calculated and allocated by the manufacturers of those finished products (using these intermediate LCA and EPD data as part of their own Upstream processes). That's why the cradle-to-grave with options option is given.
  - In this scope, declaration of environmental consequences of reuse, recycling and/or recovery of materials and energy beyond the product system (module D) is not mandatory.

- "Cradle to grave", covering all stages from A1 to C4 and module D of Section 4.3.1, in accordance with GPI Section A.3.
  - For those manufacturers willing to declare the full life cycle of their product, the cradle-to-grave approach is allowed. However, the EPD shall require detailed information to be shown in the EPD that defines the function of the product and scenarios for handling the use and end of life stages, in order to provide transparency and allow comparability within the specific application of the products. If there are many possibilities for the use stage of one single metal product, the most relevant use stage scenario

(relevant in terms of the percentage of type of use given to that specific metal product) should be chosen together with the most relevant corresponding end of life stage scenario.

The EPD shall clearly state in the cover page which one of the scopes has been selected.

All environmentally relevant processes according to the selected scope should be included, so that at minimum 95% of the total energy use, mass of product content, and environmental impact is accounted for (see Section 4.5).

4.3.1 LIFE-CYCLE STAGES AND INFORMATION MODULES

The product life cycle shall be divided into these life-cycle stages and information modules:

- Product stage, modules A1-A3:
  - A1: Raw material extraction and processing for the production of the metal, processing of secondary material input, production of consumer packaging if relevant, etc.
  - A2: Transports from the suppliers of the raw materials to the manufacturer of the finished metal product
  - A3: Manufacturing of the product[3]
    - Production of auxiliary materials consumed in the manufacturing process
    - Manufacturing processes
    - Waste generated during manufacturing and its treatment
    - Generation of electricity used in the manufacturing process
    - Production of fuels, steam and other energy carriers used in the manufacturing.
- Distribution and installation stage, modules A4-A5:
  - A4: Transport of the product to the installation or user, including storage of product (e.g., warehouse and retail operations)
  - A5: Installation of the product (e.g., including transports and waste processing of material and product losses arising in A5)
- Use stage, modules B1-B7:
  - B1: Use/application/operation of the product (e.g. such as metal corrosion and degradation impact in the environment if relevant)
  - B2: Maintenance of the product
  - B3: Repair of the product
  - B4: Replacement
  - B5: Refurbishment
  - B6: Energy use in use/application/operation
  - B7: Water use in use/application/operation
- End-of-life stage, modules C1-C4:
  - C1: Deinstallation of the metal product
  - C2: Transport to sorting/recycling or to end-of-life disposal site.
  - C3: Sorting, collection, processing of waste product for the different routes (reuse, recycling, energy recovery, final disposal) at a waste processing facility.
  - C4: Final disposal at disposal site, including any required pre-treatment and the management of the disposal facility.
- In addition, consequences of recovered material/energy beyond the product cycle shall be reported in a separated module D, if the scope cradle to grave is applied.

In the EPD, the environmental performance of each of the included life-cycle stages and module D shall be reported separately, and in aggregated form for the life-cycle stages modules A1-A3. The results of module D shall never be aggregated with the results of the product life cycle.

[3] These are often, but not always, the processes under operational control of the EPD owner.

Section A.3.1 of the GPI outlines rules for how to assign generation of electricity and production of fuels, steam and other energy carriers used, and losses arising, in each information module.

Note that generation of electricity and production of fuels, steam and other energy carriers shall be assigned to the information module in which the energy carrier is used. Also note that each module shall include the waste processing of waste generated in the module up to the end-of-waste state or final disposal. Related, note the way of assigning losses described in Figure 3 of Section A.3.1 of the GPI.

Processes not listed here 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.

4.3.1.1 Excluded processes

See Section A.3.1.1 of the GPI.

4.3.1.2 Infrastructure and capital goods

See Section A.3.1.2 of the GPI.

4.3.2 OTHER BOUNDARY SETTING RULES

See Section A.3.2 of the GPI for rules on setting boundaries to nature as well as geographical and temporal boundaries. See Section A.4 of the GPI and Section 4.6 below for rules on setting boundaries to other product systems.

4.4 PROCESS FLOW DIAGRAM

Figure 1 provides a general process flow diagram for the product category. The EPD shall declare a specific process flow diagram of the product, which will depend on the specific technologies and the integrated processes of the manufacturer as well as the chosen system boundary.

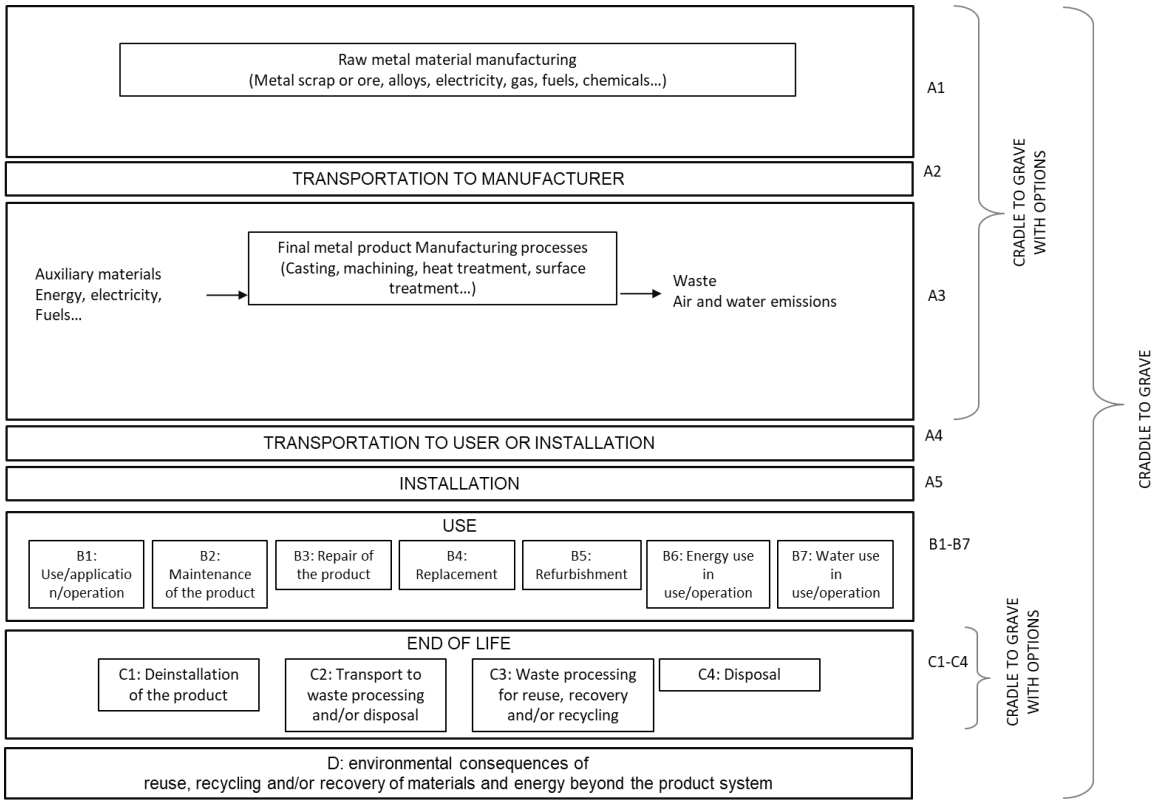

Figure 1. Process flow diagram illustrating the processes that shall be included in the product system for general metal products, divided into the life-cycle stages. The illustration of processes is not exhaustive.

4.5 CUT-OFF RULES

See Section A.3.3 of the GPI.

4.6 ALLOCATION RULES

See Section A.4 of the GPI.

Note 1: For a recycled material (e.g., scrap) to be classified as waste, and thus be required to be classified as waste and not as a co-product, it is sufficient that one of the criteria of the end-of-waste state (see Section 4.6.2) at some point has ceased to be fulfilled. This means that there can be materials for recycling that have positive economic value but are still classified as waste and thus allocated according to the rules in Section 4.6.2.

Note 2: Recycled materials from a scrapyard where the origin is unknown (e.g., data/statistics are missing for the specific scrapyard or the country of its location), shall be assumed to be waste and allocated accordingly. Further guidance may be provided on www.environdec.com/methodology. For consistency, scrap sent to a scrapyard shall be assumed to be waste and allocated accordingly.

4.6.1 ALLOCATION OF CO-PRODUCTS

See Section A.4.1 of the GPI.

4.6.2 ALLOCATION OF WASTE

See Section A.4.2 of the GPI.

4.7 DATA AND DATA QUALITY RULES

See Section A.5 of the GPI.

4.7.1 DATA CATEGORIES

See Section A.5.1 of the GPI.

4.7.2 DATA QUALITY REQUIREMENTS FOR PRIMARY DATA

See Section A.5.2 of the GPI.

4.7.3 DATA QUALITY REQUIREMENTS FOR REPRESENTATIVE SECONDARY DATA

See Section A.5.3 of the GPI.

4.7.4 DATA QUALITY ASSESSMENT AND DECLARATION

See Section A.5.4 of the GPI.

4.7.5 EXAMPLES OF DATABASES FOR SECONDARY DATA

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

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

Process	Geographical scope	Database
Steel, iron ore and pig iron	Global	Ecoinvent database, cut-off www.ecoinvent.com
Electricity	Global	Data combined with IEA (International Energy Agency) statistics on electricity generation mixes for nations, regions, etc. http://www.iea.org/statistics/
Electricity	Global	Ecoinvent database www.ecoinvent.com
Chemicals	Global	Ecoinvent database www.ecoinvent.com
Transports	European	European Reference Life Cycle Data System (ELCD) http://eplca.jrc.ec.europa.eu/ELCD3
Transports	Global	Ecoinvent database www.ecoinvent.com
Waste management	Global	Ecoinvent database www.ecoinvent.com
Process	**Geographical scope**	**Database**
Metal ore	Global	Ecoinvent database, cut -off www.ecoinvent.com
Steel, iron ore, pig iron and steel raw materials	Global	World Steel Association www.worldsteel.org
Aluminium ore and Aluminium raw materials	Global	European Aluminium asociation https://european-aluminium.eu/
Copper	Global	International Copper Association (ICA) https://copperindustryeu2030.eu/
Other	European	Eurometaux https://eurometaux.eu
Electricity and energy	Global	Data combined with IEA (International Energy Agency) statistics on electricity generation mixes for nations, regions, etc. http://www.iea.org/statistics/ Ecoinvent database www.ecoinvent.com The composition of the residual grid mixes on the market are available for all EU countries and a few additional European countries through the Association for Issuing Bodies (AIB 2024).
Chemicals	European	European Commission Environment http://ec.europa.eu/enterprise/sectors/chemicals/reach/index_en.htm
Chemicals	Global	Ecoinvent database www.ecoinvent.com
Transports	Global	Ecoinvent database www.ecoinvent.com
Waste management	Global	Ecoinvent database www.ecoinvent.com

4.8 OTHER LCA RULES

See Section A.6 of the GPI.

4.8.1 MASS BALANCE

See Section A.6.1 of the GPI.

4.8.2 ELECTRICITY MODELLING

See Section A.6.2 of the GPI.

Note: as stated in Section A.6.2 of the GPI, for an entity (e.g., a manufacturing site) producing more than one product, contractual instruments for electricity shall not be assigned to specific products unless a separate electricity supply[4] and electricity contract is in place. Accordingly, if the contract for purchased electricity is done at a site level, any contractual instruments purchased shall be evenly assigned to all product produced at that site. If a site produces several products, the purchased contractual instruments in one year shall thus correspond to the electricity used to produce the corresponding annual sales volume of all the products.

The following requirement for contractual instruments in the GPI may not be possible to comply with in all markets for contractual instruments: "the contractual instrument shall be valid for at least the upcoming six months from the publication of the EPD." Therefore, it is replaced with the following: "is produced as close as possible to the period to which the contractual instrument is applied and comprises a corresponding timespan."

4.8.3 BIOGAS MODELLING

See Section A.6.3 of the GPI.

Note: as stated in A.6.3, for an entity (e.g., a manufacturing site) producing more than one product, biogas certificates shall not be assigned to specific products unless a separate biogas supply[5] and biogas contract is in place. Accordingly, if the contract for purchased biogas is done at a site level, any biogas certificates purchased shall be evenly assigned to all product produced at that site. If a site produces several products, the biogas certificates purchased in one year shall, thus, correspond to the biogas used to produce the corresponding annual sales volumes of all the products.

4.9 SPECIFIC RULES PER LIFE-CYCLE STAGE AND MODULE D

See Section A.7 of the GPI.

4.10 ENVIRONMENTAL PERFORMANCE INDICATORS

See Section A.8 of the GPI.

4.11 SPECIFIC RULES PER EPD TYPE

4.11.1 MULTIPLE PRODUCTS FROM THE SAME COMPANY

See Section A.9.1 of the GPI.

As a reminder, note that several sets of results reflecting different products, shall not be declared in the same EPD.

[4] "Separate electricity supply" here refers to spatially separate supply. I.e., it is not sufficient that the electricity supply is separated in time. This means that the manufacturer cannot claim that electricity associated with contractual instruments is used during a certain time period of the year, and that the residual grid mix is used during the rest of the year.
[5] "Separate biogas supply" here refers to spatially separate supply. I.e., it is not sufficient that the biogas supply is separated in time.

4.11.2 SECTOR EPD

See Section A.9.2 of the GPI.

4.11.3 EPD OWNED BY A TRADER

See Section A.9.3 of the GPI.

4.11.4 EPD OF PRODUCT NOT YET ON THE MARKET

See Section A.9.4 of the GPI.

4.11.5 EPD OF PRODUCT RECENTLY ON THE MARKET

See Section A.9.5 of the GPI.

5 CONTENT OF LCA REPORT

Data for verification shall be presented in the form of an LCA report – a systematic and comprehensive summary of the project documentation that supports the verification of an EPD. The LCA report is not part of the public communication.

See Section 8.3.1 of the GPI for rules on the content of the LCA report.

Note that there may be rules on the content of the LCA report elsewhere in the GPI or in this PCR.

6 CONTENT AND FORMAT OF EPD

See Section 7 of the GPI.

6.1 EPD LANGUAGES

See Section 7.1 of the GPI.

6.2 UNITS AND QUANTITIES

See Section 7.2 of the GPI.

6.3 USE OF IMAGES IN EPD

See Section 7.3 of the GPI.

6.4 SECTIONS OF THE EPD

See Section 7.4 of the GPI.

6.4.1 COVER PAGE

See Section 7.4.1 of the GPI.

6.4.2 GENERAL INFORMATION

See Section 7.4.2 of the GPI.

6.4.3 INFORMATION ABOUT EPD OWNER

See Section 7.4.3 of the GPI.

6.4.4 PRODUCT INFORMATION

See Section 7.4.4 of the GPI.

6.4.5 CONTENT DECLARATION

See Section 7.4.5 of the GPI.

6.4.6 LCA INFORMATION

See Section 7.4.6 of the GPI.

6.4.7 ENVIRONMENTAL PERFORMANCE

See Section 7.4.7 of the GPI.

The EPD shall declare the environmental performance indicators listed or referred to in Section 4.10, per declared unit, per life-cycle stage and in aggregated form (A1-A3 and A1-C4) and separately for module D, if applicable.

6.4.8 ADDITIONAL ENVIRONMENTAL INFORMATION

See Section 7.4.8 of the GPI.

6.4.9 ADDITIONAL SOCIAL AND ECONOMIC INFORMATION

See Section 7.4.9 of the GPI.

6.4.10 INFORMATION RELATED TO SECTOR EPDS

See Section 7.4.10 of the GPI.

6.4.11 VERSION HISTORY

See Section 7.4.11 of the GPI.

6.4.12 ABBREVIATIONS

See Section 7.4.12 of the GPI.

6.4.13 REFERENCES

See Section 7.4.13 of the GPI.

7 LIST OF ABBREVIATIONS

CPC	Central product classification
EPD	Environmental product declaration
GPI	General Programme Instructions
ISO	International Organization for Standardization
LCA	Life cycle assessment
PCR	Product category rules
RSL	Reference service life
UN	United Nations
SI	The International System of Units
CO_2	Carbon dioxide

8 REFERENCES

EPD International (2019) PCR 2014:10 Fabricated steel products, except construction products, machinery and equipment. Version 2.12.

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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 (2015a) ISO 14001:2015, Environmental management systems – Requirements with guidance for use.

ISO (2015b) ISO 9001:2015, Quality management systems – Requirements.

ISO (2018b) ISO/TS 14067:2018, Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification and communication.

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9 VERSION HISTORY OF PCR

VERSION 1.0, 2023-01-06

Original version replaces PCR 2014:10 “Fabricated steel products, except construction products, machinery and equipment”.

VERSION 1.01, 2023-05-19

Editorial changes

VERSION 1.0.2, 2023-11-29

- Clarification that for bearings, bearing units, and parts thereof, this PCR is not applicable, and the more specific PCR 2023:03 shall be used.
- Missing references added in Section 8.
- Editorial changes.

VERSION 1.0.3, 2025-07-29

- Validity period was shortened to 2026-07-29 as version 2.0.0 of this PCR was published on 2025-07-29 thereby allowing a transition period of one year between version 1.0.3 and version 2.0.0

VERSION 2.0.0, 2025-07-29

The content of the PCR is updated and adapted to requirements in GPI 5.0.1.

FABRICATED METAL PRODUCTS, EXCEPT CONSTRUCTION PRODUCTS

PRODUCT CATEGORY CLASSIFICATION: UN CPC 412, 414, 416, 42