

PROFESSIONAL CLEANING SERVICES FOR BUILDINGS

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853

PCR 2011:03
VERSION 3.0.2

VALID UNTIL: 2026-05-06



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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 declarations¹ 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.

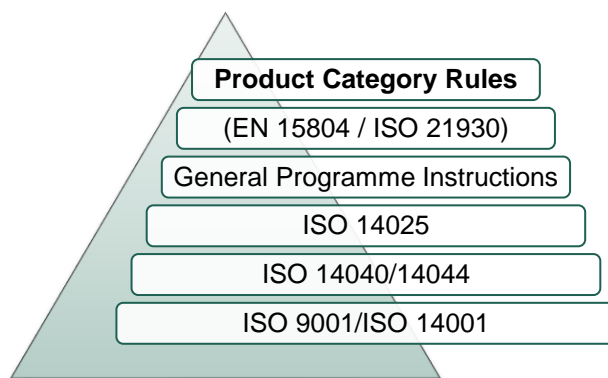


Figure 1 Illustration PCR in relation to the hierarchy of standards and other documents.

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:	Professional cleaning services for buildings
Registration number and version:	2011:03, Version 3.0.2
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:	Michela Gallo, University of Genoa, Tetis Institute, michela.gallo@unige.it
PCR Committee:	CE.Si.S.P. (Centre for the Development of Product Sustainability), www.cesisp.unige.it TETIS Institute Srl, Spin Off of the University of Genoa, Italy, www.tetisinstitute.org FALPI S.p.A. www.falpi.com E'COSI' SRL www.ecosi.it
Date of publication and last revision:	2025-05-12 (Version 3.0.2) A version history is available in Section 8.
Valid until:	2026-05-06
Schedule for renewal:	<p>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.</p> <p>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.</p>
Standards conformance:	<ul style="list-style-type: none">General Programme Instructions of the International EPD® System, version 3.0, based on ISO 14025 and ISO 14040/14044PCR Basic Module, CPC Division 85 Support services, version 3.02
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 professional cleaning services for buildings and the declaration of this performance by an EPD. The product category corresponds to UN CPC 853 "cleaning

services" (NACE Code 81.2.1 - General cleaning of buildings). See <https://unstats.un.org/unsd/classifications/Family/Detail/1074> for additional information about the product category.

The services included in the product category definition are all the professional cleaning services for public and private buildings. Main aspects defining a professional cleaning system are:

- type of cleaning system used in terms of machinery and equipment used (e.g. washing machines, trolley, etc.)
- type of building (office, hospital, school, etc.) where the service is provided
- size of building. The size of building is divided into three main clusters:
 - Small size < 50,000 m²
 - Medium size between 50,000 and 100,000 m²
 - Large size > 100,000 m²

Life cycle inventory (LCI) shall be created separately per size of buildings.

Environmental results related to the use of different "types of cleaning systems" shall be reported separately, preferably in different EPDs. Environmental results related to different "size of buildings" shall be calculated and reported separately in the same EPDs. Only environmental results of EPDs referring to same types of cleaning systems and same size of buildings can be compared. Otherwise, in the collection of the site-specific data, the same EPD can cover different types of buildings where the service is provided.

This product category includes professional cleaning services both for private (offices, block of flats, etc.) and public sector (schools, hospitals, etc.). This PCR does not cover industrial cleaning services, unless limited to the office area. This PCR applies to all types of surface cleaning services, including cleaning of floors as well as vertical surfaces (e.g. windows). If the cleaned area of the non-floor surfaces doesn't exceed 20% of the total cleaned area (floor + other surfaces), the results shall be declared per floor area (see Section 4.1). In case the non-floor area is more than 20%, the results shall be reported separately for floor and non-floor surfaces.

The classification of the service should be specified in the EPD and the ratio between floors and vertical surfaces, such as windowpane, should refer to the national standards and/or European directives for buildings.

Any claims made about the product must be verifiable.

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:	<p>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.</p> <p>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.</p>
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3.1.2 VERSION 2.0

PCR review panel:	<p>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.</p> <p>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.</p>
Chair of the PCR review:	Maurizio Fieschi
Review dates:	2016-04-19 until 2016-06-19

3.1.3 VERSION 3.0

PCR review panel:	<p>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.</p> <p>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.</p>
Chair of the PCR review:	Maurizio Fieschi
Review dates:	2021-01-15 until 2021-04-16

3.2 OPEN CONSULTATION

3.2.1 VERSION 1.0

Version 1.0 was available for open consultation at www.environdec.com between 2011-02-15 and 2011-03-30.

3.2.2 VERSION 2.0

This PCR was available for open consultation from 2016-04-18 until 2016-06-18, 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.

A total of 244 stakeholders were invited via e-mail or other means to take part in the open consultation and were encouraged to forward the invitation to other relevant stakeholders.

3.2.3 VERSION 3.0

This PCR was available for open consultation from 2020-10-06 until 2021-01-06, 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 to take part in the open consultation, and were encouraged to forward the invitation to other relevant stakeholders. A total of 178 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 and agreed to be listed as contributors to the PCR development:

- EFCI (European Cleaning and Facility Services Industry)
- COMAC SPA

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.
- PEP ecopassport®. <http://www.pep-ecopassport.org/create-a-pep/produce-a-lca/>
- Japan Environmental Management Association for Industry (JEMAI). <http://www.ecoleaf-jemai.jp/eng/pcr.html>
- UL Environment. <https://industries.ul.com/environment/transparency/product-category-rules-pcrs#uledev>
- EPD Italy. <https://www.epditaly.it/pcr-in-via-di-sviluppo>

No existing PCRs with overlapping scope were identified.

3.4 REASONING FOR DEVELOPMENT OF PCR

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

3.5 UNDERLYING STUDIES

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

- Life-Cycle Assessment (LCA) applied to MICRORAPID cleaning system (June 2018)
- Life-cycle Assessment (LCA) applied to cleaning system MARKAS (rev.3 September 2015)
- LCA and CFP report of Servizi Italia, March 2019
- Studio LCA pulizia Servizi Associati, October 2018

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

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

4.1 FUNCTIONAL UNIT

The functional unit is 1.00 m² kept cleaned in a period of 1 year. The environmental impact shall be given per functional unit and for each building size separately (see Section 2.1.1). The definition of a cleaned square meter refers to the contractual agreement between the client and the cleaning service supplier: for assuring cleanness, professional cleaning services can be provided periodically (once, twice a week, daily, etc.), but the declared unit is to be considered cleaned during the fixed period of 1 year, regardless of periodicity.

Professional cleaning services are provided for different types of floors and other surfaces and different types of buildings. The results must be referred to the area 1.00 m² of a "representative average surface" for the professional cleaning service, where "representative" refers to the different types of surface, while "average" refers to data source.

Regarding "representative", in case the area of the other surfaces (for example windows) in a site is less than 20%, it can be disregarded and results shall refer only to the floor area (expressed in m²). For example, in case of 1000 m² of floor and 100 m² of other surfaces to be cleaned (windows, doors), final results shall refer to the 1000 m² of floor only. In case of 1000 m² of floor and 300 m² of other surfaces to be cleaned (windows, doors), final results shall refer separately to floor and to other surfaces. See Section 2.2.1

Regarding "average", the analysis can yield the results related to an "average" floor of the different sites where the service is provided and considered in the data collection. For example, the average data derived by the collection data of three different schools. Then, the average profile can be derived from the average values of all the sites considered. Regarding representativeness, in case the total area of the other surfaces in the average profile derived from all the site is less than 20%, the rule in the previous paragraph should be applied and those surfaces should be disregarded.

The EPD owner shall list and describe in the EPD all the sites involved in data collection: area cleaned (in m²), size and use of building, location, etc.

In the selection of representative sites, any cherry-picking mechanism should be avoided, paying particular attention to energy consumption: i.e. avoiding selection of buildings with self-production from renewable sources, or high environmental performances due to the characteristics of the selected building and not to the cleaning service.

The aspects influencing the selection of buildings to be included in the study are:

- type of cleaning system used in terms of machinery and equipment used,
- type and size of building where the service is provided.

The functional unit, the type and size of buildings and the total cleaned surface area (floor and other surface, if applicable of every considered building) shall be stated in the EPD.

A further description of the function of the service should be included in the EPD, if relevant.

4.2 REFERENCE SERVICE LIFE (RSL)

Not applicable for this product category.

4.3 SYSTEM BOUNDARY

The International EPD® System uses an approach where all attributional processes from "cradle to grave" should be included using the principle of "limited loss of information at the final product". This is especially important in the case of business-to-consumer communication. This PCR refers to a service and the scope of this PCR and EPDs based on it is cradle to grave.

4.3.1 LIFE CYCLE STAGES

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

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

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

4.3.1.1. Upstream processes

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

- Extraction and production of raw materials (e.g. steel, plastics, etc.) of any chemicals, materials, packaging, consumables, machinery and equipment used in the cleaning service (e.g. trays, buckets, bag holders, supports, broom, brush, soap, detergents, etc.)
- Transports needed for the upstream processes

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

The upstream processes shall include raw materials and energy wares needed for the production of all the consumables.

Any machinery (i.e. washing machine) and equipment (i.e. cleaning trolley) used in the operation of the service with an expected lifetime over three years is considered as capital goods and their manufacturing shall be included in the system boundaries taking in consideration the expected lifetime listed in the following table in order to calculate the contribution to final impact in the reference period (i.e. 1 year). With an expected lifetime of less than three years, they shall be considered consumables.

The following expected lifetime shall be applied in calculation. Any deviation shall be justified and approved by the verifier.

Machinery/Equipment	Expected lifetime (year)
Washer dryer and washing machine	6
Scrubbing machines, liquid vacuum machine, floor sweeping machines, monobrush	5
Inox trolley	7
Plastic polymer trolley	4
Other equipment	5

Chemicals shall be included as amount of the generic substances: i.e. kg of soap, detergents, paraffin, etc.

Otherwise they shall be included considering the concentration of the chemicals (e.g. sodium hydroxide) plus the weight of the content of water. The percentage of chemicals can be deduced by the safety data sheets of the cleaning products.

A minimum of 99% of the total weight of the consumables, including packaging, shall be included.

The technical system shall not include manufacturing of buildings.

4.3.1.2. Core processes

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

- External transportation to the core processes
- Operation of the service: use of the machineries, equipment and any other support involved in the cleaning service (i.e. weepers, scrubber dryers, single disk, wet and dry vacuum cleaners, carpet cleaners, steam cleaners, high pressure washers)
- Maintenance of machinery and equipment
- Business travel of personnel, if relevant

- Travel to and from work by personnel, if relevant
- Transportation of machineries, equipment, chemicals, etc. to the building(s) where the service is provided; transportation shall be considered only in case is carried out constantly in supplying the service.
- Production of fuels and heat used in the service
- Water used by machineries, equipment and for dilution of chemicals (i.e. tap water).
- Generation of the electricity used by equipment and machineries, according to the proper energy mix hypotheses (see Section 4.10).
- 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:

- Waste and wastewater treatment of any waste generated in the core processes, including dismantling of machinery and equipment; Waste and wastewater from extraordinary maintenance operations may be excluded.

4.3.2 OTHER BOUNDARY SETTING

4.3.2.1. Boundary towards nature

Boundaries to nature are defined as where flows of material and energy resources leaves from nature and enters the technical into the system, i.e. the part of the environment that is made or modified by humans. Emissions to air, water and soil cross the system boundary when they are emitted from 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 4.6.2.

4.4 SYSTEM DIAGRAM

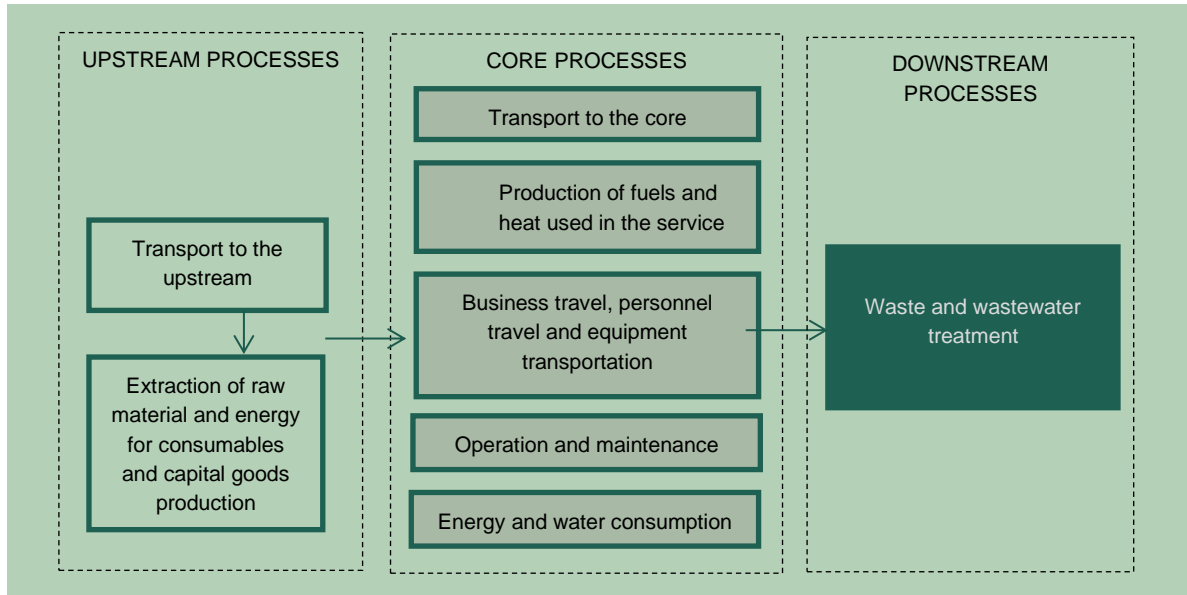


Figure 2 System diagram illustrating the processes included in the service system, divided by colour into upstream, core and downstream processes.

4.5 CUT-OFF RULES

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

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

4.6 ALLOCATION RULES

4.6.1 CO-PRODUCT ALLOCATION

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

1. Allocation shall be avoided, if possible, by dividing the unit process into two or more sub-processes and collecting the environmental data related to these sub-processes.
2. If allocation cannot be avoided, the inputs and outputs of the system shall be partitioned between its different products or functions in a way that reflects the underlying physical relationships between them; i.e. they should reflect the way in which the inputs and outputs are changed by quantitative changes in the products or functions delivered by the system. For example, for waste and wastewater treatment, allocation could be based on mass or volume.
3. If a physical relationship between the inventory data and the delivery of co-products cannot be established, the inventory data should be allocated between the co-products in a way that reflects other relationships between them. For example, inventory data might be allocated between co-products in proportion to their economic values. If economic allocation is used, a sensitivity analysis exploring the influence of the choice of the economic value shall be included in the LCA report.

Any deviation from these allocation rules must be documented and justified

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 service -specific processes are carried out, and data from other parts of the life cycle traced to the specific service 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.. Specific data shall be gathered from the service supplier and from the building(s) where the professional cleaning service is carried out. Beside an average profile can also be derived from the average values of more sites/buildings considered. The average profile shall be created separately per size of buildings.
- **generic data** (sometimes referred to as "secondary data"), divided into:
 - **selected generic data** – data from commonly available data sources (e.g. commercial databases and free databases) that fulfil prescribed data quality characteristics for precision, completeness, and,
 - **proxy data** – data from commonly available data sources (e.g. commercial databases and free databases) that do not fulfil all of the data quality characteristics of "selected generic data".

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

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

Specific data are gathered from the service supplier and from the building(s) where the professional cleaning service is carried out. Then, the average profile can be derived from the average values of the buildings considered.

The average profile shall be created separately per building size (note that the results separated per building size can be reported in the same EPD or in different EPDs, see Section 2.2.1).

4.7.1 RULES FOR USING GENERIC DATA

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

- the reference year must be as current as possible and preferably assessed to be representative for at least the validity period of the EPD,

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

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

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

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

4.8 RECOMMENDED DATABASES FOR GENERIC DATA

PROCESS/MATERIALS	GEOGRAPHICAL SCOPE	DATABASE
Steel	Global	Worldsteel www.worldsteel.org
Primary copper	Global	ICA (International Copper Association) www.copperinfo.com
Copper products		ECI (European Copper Institute – Life Cycle Centre) www.copper-life-cycle.org
Fuels	Global	European Reference Life Cycle Data System" (ELCD) http://lca.jrc.ec.europa.eu/
Aluminium	Global	EAA (European Aluminium Association) www.aluminium.org
Plastics	Global	Plastics Europe www.plasticseurope.org
Chemicals	Global	Plastics Europe www.plasticseurope.org
Transports	Global	NTM (Network for Transport and Environment) or regional alternatives www.ntm.a.se/eng-index.asp
Waste management	Global	European Reference Life Cycle Data System" (ELCD) http://lca.jrc.ec.europa.eu/

Table 1 Recommended databases for generic data.

The EPD shall include a reference to the unit processes/database(s) used to model the energy mix and environmental impact from electricity production in the core process, when used, including a declaration of the energy mix applied (% of environmental impact from different sources) and its emission factor per kWh (GWP-total), for transparency to the reader of the EPD.

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 the organisation (the EPD owner) has direct management control shall be specific and collected on site.
- Data referring to contractors that supply the consumables, materials, chemicals, packaging or main auxiliaries should be requested from the contractor as specific data.
- The transport of raw materials along the supply chain to the manufacturer should 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.

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

4.10.2 CORE PROCESSES

The following requirements apply to the core processes:

- Specific data shall be used for the use of chemicals and materials (consumables) in supplying the cleaning service, the use (e.g. energy and water consumption) and maintenance of the machineries, equipment and any other support involved in the cleaning service.
- 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, see section 4.8.

- Transport from the manufactures of chemicals, cleaning materials, machineries and equipments to the place of service provision should be based on the actual transportation mode, distance from the supplier, and vehicle load, if available.

4.10.3 DOWNSTREAM PROCESSES

The following requirements apply to the downstream processes:

- Site/sites specific data should be used for waste and wastewater treatment, generated in supplying the service, if available

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.

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.

- Scenarios for the waste and wastewater treatment 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 treatment scenario 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 (m³)
 - 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 figures⁴ 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
 - Contain no blank cells, hyphens, less than or greater than signs or letters (except "INA").

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 $1.2 \cdot 10^2$ and $1.2 \cdot 10^{-2}$.

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

- 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)
- Service-related information (see Section 5.4.3)
- Environmental performance (see Section 5.4.5)
- Additional environmental information (see Section 5.4.6)
- References (see Section 5.4.9)

The following information shall be included, when applicable:

- Information related to Sector EPDs (see Section 5.4.7)
- Differences versus previous versions (see Section 5.4.8)
- Executive summary in English (see Section 5.4.10)

5.4.1 COVER PAGE

The cover page shall include:

- Product name and image,
- Name and logotype of EPD owner,
- The text "Environmental Product Declaration" and/or "EPD"
- *Programme:* The International EPD® System, www.environdec.com,
- *Programme operator:* EPD International AB
- Logotype of the International EPD® System,
- EPD registration number as issued by the programme operator⁶,
- *Date of publication (issue):* 20XX-YY-ZZ,
- *Date of revision:* 20XX-YY-ZZ, when applicable,
- *Date of validity:* 20XX-YY-ZZ
- A note that "An EPD should provide current information, and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com."
- A statement of conformity with ISO 14025,

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.

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 verification⁷ and reference PCR in a table with the following format and contents:

Product category rules (PCR): PCR 2011:03 Professional cleaning services of buildings, version 2.1. UN CPC 853.
PCR review was conducted by: <i>The Technical Committee of the International EPD® System. Review chair: Maurizio Fieschi</i> Contact via info@environdec.com .
Independent third-party verification of the declaration and data, according to ISO 14025:2006: <input type="checkbox"/> EPD process certification <input type="checkbox"/> EPD verification
Third party verifier: <i><name, organisation and signature of the third party verifier></i> <i>In case of certification bodies:</i> Accredited by: <i><name of the accreditation body and accreditation number, if applicable></i> . <i>In case of individual verifiers:</i> Approved by: The International EPD® System Technical Committee, supported by the Secretariat
Procedure for follow-up of data during EPD validity involves third party verifier: <input type="checkbox"/> Yes <input type="checkbox"/> No

5.4.3 SERVICE-RELATED INFORMATION

The service-related 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 building(s),
- Service identification by name, and an unambiguous identification by standards, concessions or other means,
- Identification of the service 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),

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.

- Description of the service, 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,
- 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,
- Type of equipments used in the provision of the service, their total power capacity and their technical life time,
- Type (office, hospital, school, etc.) and size/s (small, medium, large see Section 1.2.1) of building(s) considered in the LCI
- Periodicity of the service (i.e. twice a week)
- Service identification by name, trade name and service code (if applicable),
- A simple visual representation or image of the service.

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,
- Description of the intended use of the service,
- Specific characteristics improving the usefulness of the service with regard to good environmental performance,
- Logotype of the service provider
- Other types of relevant information such as specific beneficial from the environmental point of view, percentage recycled material, water saving, etc,

Any claims made about the service must be verifiable

5.4.4 CONTENT DECLARATION

Not relevant for this product category.

5.4.5 ENVIRONMENTAL PERFORMANCE

Environmental results related to the use of different "types of cleaning systems" shall be reported separately, preferably in different EPDs.

Environmental results related to different "size of buildings" shall be calculated and reported separately in the same EPD.

Only environmental results of EPDs referring to same types of cleaning systems and same size of buildings can be compared.

5.4.5.1. Environmental impacts

The EPD shall declare the environmental impact indicators, per functional unit and per life cycle stage, using the default impact categories, characterisation models and factors available on www.environdec.com/indicators. The source and version of the characterisation models and the factors used shall be reported in the EPD. Alternative regional life cycle impact assessment methods and characterisation factors are allowed to be calculated and displayed in addition to the default list. If so, the EPD shall contain an explanation of the difference between the different sets of indicators, as they may appear to the reader to display duplicate information.

5.4.5.2. Use of resources

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

5.4.5.3. Waste production and output flows

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

5.4.5.4. Other environmental indicators

The following indicators per declared unit shall be reported in the EPD, divided into core, upstream and downstream module:

- Direct use of toxic substances in the core processes expressed in kg.
- Direct use of electrical energy in the core processes and the emission factor (GWP-total) and expressed in tons of CO₂eq/kwh related to the energy mix used.

5.4.6 ADDITIONAL INFORMATION

Information such as the presence of heavy metals and Polycyclic Aromatic Hydrocarbon (PAH), chemical products classified as carcinogenic, toxic to reproduction or causing inheritable damage shall be provided by the organisation. The classification shall be in accordance with the applicable laws where the service is provided (e.g. in Europe regulations regarding the classification and labelling of hazardous chemicals in EU classification system 1999/45/EC, with amendments).

Qualitative information about recycling or handling (end of life) of capital goods (e.g. machineries and equipment) and consumables can be included in the EPD.

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/services has been done and how the average has been determined, and
- a statement that the document covers average values for an entire or partial product category (specifying the percentage of representativeness) and, hence, the declared product is an average that is not available for purchase on the market.

5.4.8 DIFFERENCES VERSUS PREVIOUS VERSIONS

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

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

5.4.9 REFERENCES

A reference section shall include a list of references, including references to the General Programme Instructions (including version number), standards and PCR (registration number, name and version):

- The source and version of the characterisation models and the factors used shall be reported in the EPD.
- The underlying LCA
- The name, CPC code and version number of the PCR used
- Other documents mentioned in the EPD

- 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

ANZSIC	Australian and New Zealand Standard Industrial Classification
CO ₂	Carbon dioxide
CPC	Central product classification
CVP	Common Procurement Vocabulary
EPD	Environmental product declaration
GWP	Global Warming Potential
ISO	International Organization for Standardization
kg	kilogram
LCA	Life cycle assessment
LCI	Life Cycle Inventory
PCR	Product Category Rules
SI	The International System of Units
SO ₂	Sulphur dioxide
UN	United Nations
UNSPSC	United Nations Standard Products and Services Code®

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 (2019) General Programme Instructions for the International EPD® System. Version 3.01, dated 2019-09-18.
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

Life-Cycle Assessment (LCA) applied to MICRORAPID cleaning system (June 2018)

Life-cycle Assessment (LCA) applied to cleaning system MARKAS (rev.3 September 2015)

LCA and CFP report of Servizi Italia, March 2019

Studio LCA pulizia Servizi Associati October 2018

8 VERSION HISTORY OF PCR

VERSION 1.0, 2011-05-20

Original document

VERSION 1.1, 2011-08-05

Minor editorial changes

VERSION 1.2, 2014-04-01

- Update of document to comply with the latest General Programme Instructions (v2.01): - Cover page, general introduction and general information
 - Reference to data used for electricity production impacts
 - Resource use indicators
 - Specification for GWP calculations
 - Content of the EPD®
 - Validity of the EPD®
 - Removed ozone-depletion potential as an indicator of potential environmental impact, as it is no longer required
- CPC classification corrected (group 853 instead of group 971)
- Added missing reference to <http://unstats.un.org>
- Added missing phrase that any claims made about the product must be verifiable
- Added missing specification of the maximum number of significant digits that shall be used when reporting LCA results.
- Minor editorial changes

VERSION 2.0, 2016-10-13

- Updated version with prolonged validity updated with the latest PCR Basic Module.
- Section 1.2.1 (product category definition): definition of the size of buildings;
- Section 2.5 (Underlying studies);
- Section 3.1 (functional/declared unit);
- Section 3.4 (data quality requirements);
- Section 4 (Life Cycle inventory: LCI are separated for category size of buildings;
- Section 4.1 (Requirements regarding collection of specific data): specific data are collected separately per size of buildings
- Section 4.2 (Requirements regarding generic data): choice of energy mix from commercial database
- Section 4.3.2 (core process): mix of electricity used in the core processes and source of data shall be documented in the EPD;
- Section 4.4 (Requirements regarding allocation for multifunctional products and multiproduct processes;
- Section 5.1.1 (impact indicators)
- Section 6.1 (results)
- Section 6.1.4 (other environmental indicators): direct use of electrical energy in the core shall be declared in the EPD
- Section 6.3 (assumption and limitations)

- Section 7.2 (service-related information)

VERSION 2.1, 2019-03-12

- Updated in accordance with GPI 3.0 and new PCR basic module.
- Added recommendation to avoid cherry-picking of data

VERSION 3.0, 2021-05-06

- Updated version of PCR after expiration according to the latest version of the PCR Basic Module (CPC 85 support services version 3.02).
- Section 2.2.1: editorial changes for a better clarification of some definition.
- Section 4.1: editorial changes for a better clarification of the functional unit to be used.
- Section 4.3.1: extraction and production of raw materials of any consumables reclassified as upstream processes (previously they were classified as core processes). Production of fuels and heat used in the service classified as core processes. Waste and wastewater treatment included in the downstream processes. Added table as reference for the expected lifetime of machinery and equipment.
- Section 4.4: modified according to changes in Section 4.3.1.
- Section 4.6: editorial changes to clarify the allocation rules.
- Section 4.10: editorial changes to adapt the text to provision of services.
- Section 5.4: deletion of the content declaration.
- Other minor editorial changes.

VERSION 3.0.1, 2022-04-13

- Editorial changes in Sections 5.4.5.1 to 5.4.5.3, to clarify the indicator list at www.environdec.com applies also for the indicators of resource use, waste production and other output flows.

VERSION 3.0.2, 2025-05-12

- Prolonged validity period with 12 months, until 2026-05-06, as an updating process has been initiated.

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