EPD
INTERNATIONAL EPD SYSTEM

PROFESSIONAL CLEANING SERVICES FOR BUILDINGS

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853

PCR REGISTRATION NUMBER TO BE ADDED BY THE SECRETARIAT
VERSION NUMBER TO BE ADDED BY THE SECRETARIAT

VALID UNTIL 20XX-YY-ZZ *(TO BE ADDED BY THE SECRETARIAT)*

PCR READY FOR OPEN CONSULTATION

INTRODUCTION TO OPEN CONSULTATION

This draft PCR document is available for open consultation from 2025-05-15 until 2025-07-10. Feel free to forward the draft to any other stakeholder you might think is relevant, including colleagues and other organisations.

This is an updated of an existing version of this document, which will have a prolonged validity. We are therefore interested in comments from stakeholders on:

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

Comments may be provided directly to the PCR Moderator. There is a template for comments on www.environdec.com that may be used.

For questions about the PCR, please contact the PCR moderator. For general questions about the International EPD® System, EPD or PCR development, please contact the Secretariat via support@environdec.com.

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1 INTRODUCTION

This document constitutes Product Category Rules (PCR) developed in the framework of the International EPD System: a programme for 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.

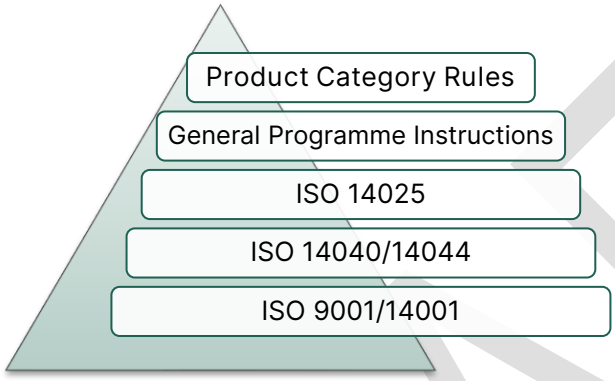

Figure 1. The hierarchy between PCRs, standards, and other documents. EN 15804 and ISO 21930 are normative standards for construction products only.

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:	Professional cleaning services for buildings
Registration number and version:	*To be added by the Secretariat*
Programme:	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:	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
Publication date:	*To be added by the Secretariat* See Section 9 for a version history of the PCR.
Valid until:	*To be added by the Secretariat* 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 5.0.0, based on ISO 14025 and ISO 14040/14044.[2] *PCR Basic Module, CPC Division 85 Support services, version 3.02.*
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 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 m^2
  - Medium size between 50,000 and 100,000 m^2
  - Large size > 100,000 m^2

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.

The product category "professional cleaning services for buildings" may also be referred to using the following synonyms and related terms: "Facility cleaning services", "Commercial cleaning services".

Professional cleaning services for buildings can be considered partially interchangeable, depending on factors such as service pricing, quality standards, and specific customer requirements. A price increase in one type of cleaning service may lead to increased demand for alternative providers or different cleaning systems (e.g., mechanized vs. manual cleaning).

Life Cycle Assessment (LCA) studies for cleaning services have been conducted in various contexts, focusing on aspects such as energy and water consumption, chemical use, and waste generation (see paragraph 3.5 for underlying LCA studies used

[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.

for the development of this PCR). Existing literature highlights the environmental impact of different cleaning systems, including automated versus manual processes, and variations in impact depending on the building type and size.

Any claims made about the product must be verifiable.

2.2.2 GEOGRAPHICAL SCOPE

This PCR may be used globally.

2.2.3 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.

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

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

3.1.2 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 http://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 for forward the invitation to other relevant stakeholders.

3.1.3 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 http://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 for 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

3.1.4 VERSION 4.0.0

This PCR was available for open consultation from *date* until *date*, during which any stakeholder was able to provide comments by contacting the PCR Moderator and/or the Secretariat.

Above dates shall be given in the following format: 20YY-MM-DD.

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

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

- *List of stakeholder names and affiliation (to be added after the open consultation).*

In case no stakeholders provided comments and agreed to be listed as contributors, the above sentence shall be adjusted accordingly ("No stakeholders provided comments during the open consultation and agreed to be listed as contributors in the PCR and on www.environdec.com.") and the bullet list shall be removed.

In case of multiple major revisions of the PCR (1.0, 2.0, etc.), information about each open consultation should be added as sub-sections (3.2.1, 3.2.2, etc.).

3.2 PCR REVIEW

3.2.1 VERSION 1.0

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.

3.2.2 VERSION 2.0

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:	Maurizio Fieschi
Review dates:	2016-04-19 until 2016-06-19

3.2.3 VERSION 3.0

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:	Maurizio Fieschi
Review dates:	2021-01-15 until 2021-04-16

3.2.4 VERSION 4.0.0

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:	*To be added by the Secretariat*

Review dates:	*To be added by the Secretariat*

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.
- 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

Table 1 lists the identified PCRs and other standardised methods.

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/date of publication	Scope
EPDItaly 008: CORE-PCR Servizi di pulizia per strutture sanitarie	EPD Italy	Date of publication: 03-06-2024 Last revision: 00	Italy

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:

- 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 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

The functional unit is 1.00 m^2 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 m^2 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 m^2). For example, in case of 1000 m^2 of floor and 100 $m^2$of other surfaces to be cleaned (windows, doors), final results shall refer to the 1000 m^2 of floor only. In case of 1000 m^2 of floor and 300 m^2 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 m^2), 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.

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

Not applicable for this product category.

4.3 SYSTEM BOUNDARY

This PCR refers to a service and the scope of this PCR and EPDs based on it is cradle-to-grave, covering all processes related to professional cleaning services. The system boundary includes the production of cleaning materials and equipment, their transportation, service provision (energy and resource use), and the management of waste and consumables at the end of their life. At least 95% of total energy use, product mass, and environmental impact is accounted for. The end-of-life stage includes waste management of cleaning products and packaging.

4.3.1 LIFE-CYCLE STAGES AND INFORMATION MODULES

Because of different data quality rules and the presentation of results, the product life cycle shall be divided into the following life-cycle stages and information modules:

- Product stage, modules A1-A3:
  - A1: Raw material extraction and processing (e.g., mining, agricultural and forestry operations), production of intermediate materials and components (e.g., including transformation processes such as rolling, drawing and extrusion), processing of secondary material input (e.g., recycling processes), production of distribution and consumer packaging, etc.
  - A2: Transports from suppliers to cleaning service provider
  - A3: Manufacturing of the product[3] : Not applicable since it pertains to a service.
- Distribution and installation stage, modules A4-A5:
  - A4: Transport of the product to the building/installation site/user, including storage of product (e.g., warehouse and retail operations)
  - A5: Installation of the product, for example in a building as part of the construction of the building (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., including direct emissions associated with its use)
  - B2: Maintenance of the product
  - B3: Repair of the product
  - B4: Replacement
  - B5: Refurbishment: Not applicable
  - B6: Energy use in use/application/operation
  - B7: Water use in use/application/operation
- End-of-life stage, modules C1-C4:
  - C1: De-construction/demolition/deinstallation
  - C2: Transport to waste processing and/or disposal
  - C3: Waste processing for reuse, recovery and/or recycling
  - C4: Disposal

In addition, consequences of recovered material/energy beyond the product cycle shall be reported in module D.

In the EPD, the environmental performance of each of the life-cycle stages and module D shall be reported separately, and in aggregated form for the life-cycle stages (modules A-C).

[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.

Sections Fel! Hittar inte referenskälla.–Fel! Hittar inte referenskälla. further describe the processes to include or exclude for each life-cycle stage.

4.3.1.1 Modules A1-A3: Product stage

Typical processes of each information module of this life-cycle stage are:

- Module A1:
  - Extraction and production of raw materials (e.g. steel, plastics, etc.)
  - Production 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.)
  - Energy wares needed for the production of all equipment and consumables
- Module A2:
  - Transport of all equipment and consumables from suppliers to the cleaning service provider.

  Note: In certain cases, for this type of service, the transportation of specific components may bypass this module and go directly from the supplier to the construction site. In such circumstances, the transportation falls under A4.
- Module A3: Not applicable since it pertains to a service.

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.

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.

The technical system shall not include manufacturing of buildings.

4.3.1.2 Modules A4-A5: Distribution and installation stage

Typical processes of each information module of this life-cycle stage are:

- Module A4:
  - Transportation of equipment, materials, consumables from cleaning service provider to the building site where the cleaning service is performed

- Warehouse operations

- Module A5:
  - Installation of washing machines or equipment (if applicable)
  - Waste processing of material and equipment losses (if applicable)

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.

4.3.1.3 Modules B1-B7: Use stage

Typical processes of each information module of this life-cycle stage are:

- Module B1:
  - Use of the machineries
  - Use of 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)
  - Business travel of personnel, if relevant
  - Travel to and from work by personnel, if relevant
  - Research and development activities
- Module B2:
  - Maintenance of machinery and equipment
- Module B3:
  - Repair of machinery (washing machines, other machinery involved in operation)
  - Repair of equipment (e.g. cleaning trolleys)
- Module B4:
  - Replacement of equipment and machinery
- Module B5:
  - Refurbishment of equipment (e.g.: washing machines)
- Module B6:
  - Production of fuels and heat used in the service
  - Energy use in operation
  - Generation of the electricity used by equipment and machineries, according the proper energy mix hypotheses
- Module B7:
  - Water use in operation (by machineries, equipment)
  - Water used for dilution of chemicals (i.e. tap water).

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.

4.3.1.4 Modules C1-C4: End-of-life stage

Typical processes of each information module of this life-cycle stage are:

- Module C1:
  - Deinstallation of machineries or equipment (if applicable)
  - Dismantling of machinery

- Module C2:
  - Transport to waste processing and/or disposal
- Module C3:
  - Waste and wastewater treatment of any waste generated (including waste generated by machinery dismantling)
  - Waste and wastewater from extraordinary maintenance operations may be excluded
- Module C4:
  - Disposal of material, consumables, machinery and equipment

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.

4.3.1.5 Excluded processes

See Section A.3.1.1 of the GPI.

- Module C3: Waste and wastewater from extraordinary maintenance operations may be excluded.

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

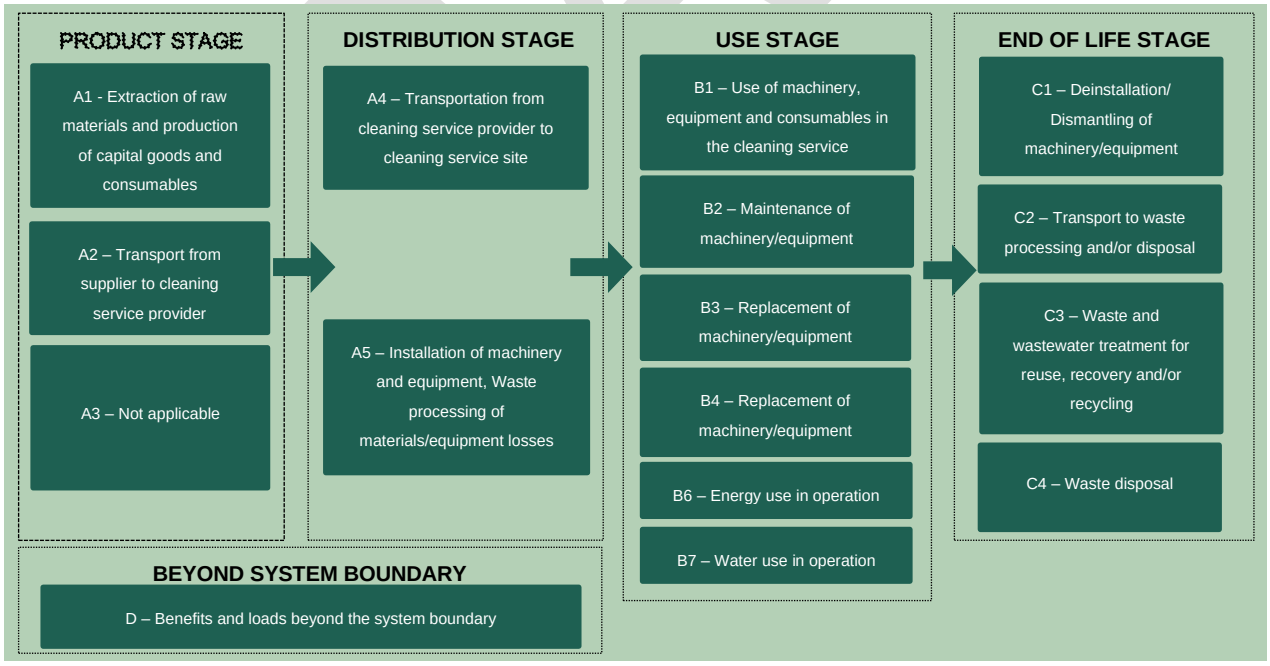

Figure 2. Process flow diagram illustrating the processes that shall be included in the product system, divided into the life-cycle stages. The illustration of processes to include may not be exhaustive.

4.5 CUT-OFF RULES

See Section A.3.3 of the GPI.

4.6 ALLOCATION RULES

See Section A.4 of the GPI.

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.

See Section 4.8 for further rules related to data and data quality per life-cycle stage and module D.

An LCA calculation for professional cleaning services requires two different kinds of information:

- Data related to the environmental aspects of the cleaning system, such as materials or energy flows entering the cleaning service operations. These data must come from the service provider and the buildings where the service is performed.
- Data related to the life cycle impacts of the material or energy flows used in the cleaning process, typically sourced from databases.

Environmental data shall be as specific as possible and representative of the studied cleaning process. Data on the life cycle of materials or energy inputs are classified into three categories:

- Specific data (also referred to as “primary data” or “site-specific data”) – data collected from the actual cleaning service provider and the buildings where the service is performed. This includes materials and electricity supplied by a contracted provider that can supply actual service-specific data, transportation based on actual fuel consumption and related emissions, etc. If data are available for multiple buildings, an average profile can be created, which shall be developed separately based on building size.
- Selected generic data – data from commonly available data sources (e.g., commercial and free databases) that meet prescribed data quality characteristics in terms of precision and completeness.
- Proxy data – data from commonly available data sources that do not meet all the quality criteria of selected generic data and should only be used when specific or selected generic data are not available.

Specific data shall always be used when available, following a data quality assessment. It is mandatory to use specific data for core cleaning processes as defined above. For upstream and downstream processes, as well as infrastructure, selected generic data may be used when specific data are not available.

All data should preferably represent average values for a specific reference year. However, if data collection spans multiple years, the resulting average must be representative of the reference period. Any deviations in data representativeness should be explicitly stated.

If the average profile is derived from multiple buildings, it must be created separately by building size. The results differentiated by building size can be reported in the same EPD or in separate EPDs.

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	Global	Worldsteel www.worldsteel.org
Primary copper / Copper products	Global	ICA (International Copper Association) www.copperinfo.com ECI (European Copper Institute – Life Cycle Centre) www.copper-lifecycle.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 https://www.transportmeasures.org/en/
Waste Management	Global	European Reference Life Cycle Data System" (ELCD) http://lca.jrc.ec.europa.eu/

4.8 OTHER LCA RULES

See Section A.6 of the GPI.

For specific LCA rules per life-cycle stage, see Section 4.9.

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.

4.8.3 BIOGAS MODELLING

See Section A.6.3 of the GPI.

4.9 SPECIFIC RULES PER LIFE-CYCLE STAGE AND MODULE D

See Section A.7 of the GPI.

Below are further data quality requirements and other LCA rules per life-cycle stage, and for module D, of relevance for the product category.

4.9.1 PRODUCT STAGE, A1-A3

- 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.

4.9.2 DISTRIBUTION AND INSTALLATION STAGE, MODULES A4-A5

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

4.9.3 USE STAGE, MODULES B1-B7

- 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;

4.9.4 END-OF-LIFE STAGE, MODULES C1-C4

This PCR does not provide any additions to the rules and guidance in the GPI on the modelling of the end-of-life stage.

4.9.5 CONSEQUENCES FOR RECOVERED MATERIAL/ENERGY BEYOND THE PRODUCT LIFE CYCLE (MODULE D)

This PCR does not provide any additions to the rules and guidance in the GPI on the modelling of module D.

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.

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.

Not relevant for this product category.

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 functional unit, per life-cycle stage and module D.

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.

6.4.8 ADDITIONAL ENVIRONMENTAL INFORMATION

See Section 7.4.8 of the GPI.

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.

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

ANZSIC	Australian and New Zealand Standard Industrial Classification
CO_2	Carbon dioxide
CPC	Central product classification
CVP	Common Procurement Vocabulary
EPD	Environmental product declaration
GPI	General Programme Instructions
GWP	Global Warming Potential
ISO	International Organization for Standardization
kg	Kilogram
LCA	Life cycle assessment
LCI	Life cycle Inventory
PCR	Product category rules
RSL	Reference service life
SI	The International System of Units
SO_2	Sulfur Dioxide
UN	United Nations
UNSPSC	United Nations Standard Products and Services Code®

8 REFERENCES

CEN (2021) EN 15804:2012+A2:2019/AC:2021, Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.

EPD International (2024) General Programme Instructions for the International EPD System. Version 5.0.0, dated 2024-06-19. Available on www.environdec.com.

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

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

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

EPDItaly 008: CORE-PCR Servizi di pulizia per strutture sanitarie Rev.00, available at: https://www.epditaly.it/pcr_/epditaly-008-core-pcr-servizi-di-pulizia-per-strutture-sanitarie/

9 VERSION HISTORY OF PCR

VERSION 1.0.0, 2011-05-20

Original version of the PCR.

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);
- Section4 (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 51.1 (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 http://www.environdec.com applies also for the indicators of resource use, waste production and other output flows.

PROFESSIONAL CLEANING SERVICES FOR BUILDINGS

PRODUCT CATEGORY CLASSIFICATION: UN CPC 853