

# JRC TECHNICAL REPORTS

Development of the EU Ecolabel Criteria and Revision of the EU Green Public Procurement Criteria for Cleaning Services

Technical report and criteria areas proposal for the 1<sup>st</sup> AHWG meeting

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## **Terms and definitions**

Cleaning	'Cleaning' has the meaning defined by EN ISO 862. Cleaning preparation', intended for domestic all-purpose cleaners and/or other cleaning of surfaces (e.g.: materials, products, machinery, mechanical appliances, means of transport and associated equipment, instruments, apparatus, etc.)
Cleaning services	'Cleaning services' refers to the commercial activities that generate revenue by maintain the cleanliness of a defined space or object at a desirable level. The focus of this project is on indoor activities performed regularly or periodically including the cleaning of commercial (e.g. offices, schools, shopping centres, hotels) or public/ institutional buildings (e.g. libraries, schools, museums, churches).
Floor cleaning	'Floor cleaning' refers to the daily and weekly cleaning of floors in commercial and public spaces using either dry or wet methods.
Sanitary cleaning	'Sanitary cleaning' refers to the maintenance of the cleanliness of sanitary facilities. Key cleaning tasks include cleaning sinks, toilet bowls and urinals, washing floor, emptying rubbish and sanitary bins and cleaning vertical surfaces.
Glass/window cleaning	'Glass/window cleaning' refers to the cleaning of glass surfaces, including mirrors. In this project, 'glass/window cleaning' only refers to the cleaning of glass areas and windows.
Surface cleaning	'Surface cleaning' refers to the daily and weekly cleaning of vertical surfaces, furniture (such as desks and chairs) and desk equipment (such as phones).
Cleaning products	'Cleaning products' refer to chemicals used in cleaning.
Routine cleaning products	'Routine cleaning products' refer to cleaning products that are used daily or weekly in cleaning. In this project, the scope of 'routine cleaning products' aligns with the product group definition of the EU Ecolabel for all-purpose cleaners and sanitary cleaners, which includes general purpose cleaners, window cleaners and sanitary cleaners.
Specialised cleaning products	'Specialised cleaning products' refer to cleaning products that are used for specific, non-regular cleaning tasks. In this project, it refers to any cleaning products that are excluded by the product group definition of the EU Ecolabel for all-purpose cleaners and sanitary cleaners.
Cleaning accessories	'Cleaning accessories' refer to reusable cleaning goods, such as cloths, mop and water buckets.
Cleaning supplies	'Cleaning supplies' refer to consumable, non-chemical cleaning goods, such as wipes, paper towels and disposable vinyl gloves.
Cleaning power equipment	'Cleaning power equipment' refers to tools used in cleaning that require energy to operate.
Standard	A document established by consensus and approved by a recognised body that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context.

EU Ecolabel	A voluntary method of environmental performance certification which identifies overall, proven environmental preference of a product or service within a specific product/service category based on life cycle considerations. There are three types of voluntary labels identified by ISO with the EU Ecolabel falling under the Type I category.
Green Public Procurement	'Green Public Procurement (GPP)' is defined in the Communication (COM (2008) 400) "Public procurement for a better environment" as "a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured."
Type I Ecolabel	'Type I Ecolabel' is a voluntary multi-criteria-based, third party program that awards a license that authorises the use of environmental labels on products indicating overall environmental preferability of a product within a particular product category based on life cycle considerations. 'Type I Ecolabel' is defined by the ISO 14024 standard.



## **Executive Summary**

The objective of this project is to 1) develop criterion of a new EU Ecolabel for cleaning services, and 2) revise the existing EU Green Public Procurement (GPP) criteria for cleaning cleaning services. The existing Cleaning Services criteria are available in <a href="http://ec.europa.eu/environment/qpp/pdf/criteria/cleaning.pdf">http://ec.europa.eu/environment/qpp/pdf/criteria/cleaning.pdf</a>.

This first report outlines a first proposal for criteria of the EU Ecolabel and provides the related rationale. Some criterion thresholds are not yet purposed and this document will be updated with the feedback from the first ad-hoc working group meeting held on 22<sup>nd</sup> January 2015.

The report consists of the following sections:

- 1. Introduction outlining the purpose of this report and a brief summary of the Preliminary Report which provides background to this document.
- 2. Proposed criterion for the EU Ecolabel for cleaning services with supporting rationale and questions to address to stakeholders.
- 3. Analysis of implications for the revision of the EU GPP criteria for cleaning services.

#### 1 Introduction

This document is intended to provide background information for the development of the EU Ecolabel criteria for cleaning services and the revision of EU GPP criteria for cleaning services. The study has been carried out by the Joint Research Centre's Institute for Prospective Technological Studies (JRC-IPTS) with technical support from Anthesis (incorporating Best Foot Forward). The work is being developed for the European Commission's Directorate General for the Environment.

### 1.1 Aim of this report

The main purpose of this document is to develop new EU Ecolabel criteria and review the existing EU GPP criteria for cleaning services. Each criterion will be discussed to determine its importance, relevance and feasibility. This document is complemented by the Preliminary Report, which summarises previous tasks on scope and legislative analysis (Chapter 1), market analysis (Chapter 2), technical analysis (Chapter 3) as well as improvement potential (Chapter 4) to support the development of the criteria.

Each criteria area and criterion is outlined in Section 3 of this report, including assessment and verification requirements. The rationale for inclusion is outlined by incorporating information collected in the initial phases of the project, presented in the Preliminary Report. Any 'feedback' discussed at this stage, refers to feedback from the stakeholder questionnaire, which was sent to a wide variety of organisations and government bodies from the European cleaning services sector.

For each criterion, a set of questions for stakeholders is foreseen. Responses and other comments that may be made available by stakeholders will be used as input to update the criteria areas/criterion.

At the end of each criteria area section, is provided an analysis of the potential implications for the revision of the existing EU GPP criteria for cleaning services.

## 1.2 Summary of the Preliminary Report on Cleaning Services

This section provides the proposal for the product group definition and scope as well as a summary of the market, technical and environmental evidence developed in the previous stages of the project that underpin the development of the EU Ecolabel and EU GPP criteria for cleaning services. All information detailed in the Preliminary Report that can be found at

http://susproc.jrc.ec.europa.eu/cleaning%20services/stakeholders.html

#### 1.2.1 Proposal for the Product Group definition and scope

A review of the available ecolabelling schemes, standards, statistics and regulations shows that in general inside the scope of cleaning services are all indoor activities typically refer to clean commercial, public, and industrial buildings - performed on a regular basis (as detailed in section 1.3.1. of the Preliminary Report). Consolidating the result of the review, the majority of schemes identified focus on Indoor activities performed regularly or periodically including the cleaning of commercial (e.g. offices, schools, shopping centres, hotels) or public/ institutional buildings (e.g. libraries, schools, museums, churches). This initial proposed scope also considers that domestic/residential cleaning may be out of scope. This is mainly because the breakdowns of the cleaning services market do not clearly evidence a market share specifically for residential / domestic cleaning (cfr. Figure 10, Chapter 1). However, considering that some ecolabels such as the Australian Ecolabel Program - Good Environmental Choice Australia Standard - Cleaning and the Nordic Swan consider domestic/residential cleaning included in the scope and that stakeholders expressed residential building to be an area for cleaning activities (cfr. Table 4, Chapter 1), this first approach might be later revised in line with stakeholder opinions and further investigation on the eventual differences (in terms of tasks performed and the use, or not, of specialised products used) in domestic/residential cleaning practices.

Stakeholders feedback was required (by using a consultation questionnaire) on the following definition for Cleaning Services: *Professional cleaning operations, performed regularly or periodically in order to keep an indoor space clean, and that can be performed manually or making use of machinery.* 

According to the preliminary research and stakeholder consultation questionnaire, the PG definition proposed to take further is presented below. A total of 21 organisations agreed with the proposed definition of the product group addressed in the survey. This constitutes an overall 78% of the total respondents. The extension to sanitization operations (e.g. cleaning of washrooms, bathrooms and toilets) aim to cover also the activities provided in the sanitary services taking place within indoor cleaning currently carried out by the cleaning services sector. The relevance of the **proposed definition** as defined below has been confirmed by stakeholders during the stakeholder consultation feedback.

Professional cleaning operations, performed regularly or periodically in order to keep an indoor space clean and sanitized, and that can be performed manually or making use of machinery

In terms of the **scope** a breakdown of market segment data for cleaning services show that indoor cleaning has the bulk of the market share. Data from 2010 shows that offices constitute 50% of the cleaning industry market (EFCI, 2012). The review made shows that several cleaning tasks take place routinely in order to keep an indoor space (building) clean and sanitized. Floor cleaning and the sanitary cleaning are among the most frequent cleaning operations. The stakeholder feedback suggested inclusion of glass/window cleaning and surface cleaning as part of the tasks routinely carried out in indoor cleaning of buildings. The scope of this project is then defined by the tasks performed in **routine cleaning (daily or weekly operations) taking place in indoor cleaning of buildings.** The activities in focus are the floor, surface, sanitary and glass/windows cleaning.

Table 1 provides insight, in terms of activities and operations for the cleaning service activities (i.e. floor cleaning, sanitary cleaning, glass/windows cleaning and surface cleaning) falling under the scope of Cleaning Services by considering the cleaning products, the power equipment use and the accessories and supplies assisting the cleaning operations tasks. These are also based upon the review made on similar labelling schemes for the cleaning services sector. There are evident relations among cleaning services and the cleaning products used under cleaning services. The criteria for cleaning products, used under the scope of Cleaning Services (all-purpose and sanitary cleaners), are being revised in parallel with the ongoing criteria revision for the EU Ecolabel for Cleaning Services.

Table 1 Cleaning activities, components and operations falling in the scope for cleaning services

Cleaning services activities		Operations	
	Key cleaning activities:	Hard floor - vacuuming and washing; carpets - vacuuming	
	Cleaning product	General purpose cleaners; floor cleaners**	
Floor cleaning	Cleaning power equipment	Commercial upright vacuum cleaners, carpet extractors, rotary floor machines, wet pick-up machines	
	Cleaning accessories and supplies	Floor pads, wet mops, bucket, trolleys, brooms, brush, plastic shovel, plastic brush, vacuum bag	

Cleaning services activities		Operations	
	Key cleaning activities:	Cleaning sinks, toilet bowls and urinals, washing floor, emptying rubbish and sanitary bins, cleaning vertical surfaces	
Sanitary cleaning	Cleaning product	Sanitary cleaners including toilet cleaners (various forms) and cleaners with limescale removal function	
	Cleaning power equipment	Restroom cleaning machines; pressure washers	
	Cleaning accessories and supplies	Waste handling equipment (carts/receptacles), towels, facial tissue, toilet tissue, sponges, scouring pads	
	Key cleaning activities:	Cleaning of internal windows, glass and mirrors	
Glass/windows	Cleaning product	General purpose cleaners; glass/window cleaners; window washing concentrate	
cleaning	Cleaning power equipment	N/A (manual cleaning only)	
	Cleaning accessories and supplies	Reusable gloves; disposable gloves; water buckets; cloths rags and paper towels; sprayer bottle	
	Key cleaning activities:	Dusting and washing surfaces and furniture; maintenance of office and communication equipment; cleaning of contact points: handles, switches and phones; washing waste bins, wiping windowsills, dusting table legs and chairs	
Surface cleaning	Cleaning product	General purpose cleaners	
	Cleaning power equipment	N/A (manual cleaning only)	
	Cleaning accessories and supplies	Dusters; mops; disposable wipes	

N/A – not applicable

In respect to what is normally considered **out of scope** the same schemes reviewed include: **Industrial cleaning** (e.g. environmental remediation, manufacturing process cleaning); **special cleaning services** (e.g. carpet shampooing, upholstery cleaning, or

mould remediation services) and **sanitation services** (e.g. sewer sanitation, cleaning after accidents/disasters, and removal of graffiti). In addition, the overview allow concluding that laundry, handwashing and dishwashing are services that do not fall under the definition and/or existing scope for cleaning services for a large number of current labelling schemes. Out of scope are the non-routine cleaning operations (as e.g. specialised cleaning and specialised industrial cleaning activities).



#### 1.2.2 Market analysis

A market analysis on cleaning services was undertaken to assess market trends, initiatives or innovations to support the development of the EU Ecolabel and the revision of EU GPP criteria. Key findings included:

- The total estimated turnover of the cleaning service industry for 2010 was €81 billion for EU-27 (Eurostat, 2010). Services within scope (offices, schools & leisure organisations, windows and receptions) constitute approximately €38 billion (47% of total turnover).
- The five largest markets for professional cleaning services are Germany, France, Italy, UK and Spain.
- Office cleaning dominates, representing 50% of turnover. However, the value of office cleaning has decreased by 8% since 1997, with an equivalent increase in specialised and related cleaning services.
- The cleaning industry structure in Europe is characterised by a large proportion
  of very small enterprises. 202 000 enterprises in Europe, of which 75% employ
  less than 10 people (Eurostat, 2010, EFCI, 2012). Large enterprises that employ
  over 500 people only constitute 1.5% of the total (EFCI, 2012).
- The way that the public sector procures cleaning services has evolved significantly. Case studies related to GPP show that quality and sustainability considerations are becoming more important in the cleaning service procurement process.
- Traditional cleaning service procurement tenders focus entirely on value.
   Sustainable cleaning service procurement includes cleaning quality, performance efficiency and environmental impacts into the equation.
   Sustainable cleaning service procurement can allocate 15-60% of the points to good environmental practices (ICLEI, 2012; European Commission, 2009).
- The biggest challenge related to the procurement of sustainable cleaning services is the availability of sustainable cleaning products and services on the market. Therefore an analysis of market opportunities has been shown as crucial element in defining the ambitious level of requirements in tenders.
- The estimated consumption volume of professional cleaning products for the EU28, Norway and Switzerland is 590 000 tonnes of product, with an estimated value of €886 million.
- No specific data was available on the sales of sustainable cleaning products or services. However, the number of signatories to charters (e.g. AISE Sustainable Cleaning Charter) or voluntary schemes (e.g. EU Ecolabel or Nordic Swan)

indicates that there is a market and interest for sustainable products and services.

- No accurate data exists on cleaning equipment consumption. However, anecdotal evidence from stakeholders suggests the volume of equipment sales is considerably smaller than product sales as they have a longer lifespan.
- It is estimated that the total value of cleaning supplies production in the EU28, Norway and Switzerland is €572 million, with over 75% of the value related to floor cleaning.
- Data provided by EFCI in 1997 shows that the market share of public tendering
  in the industrial cleaning sector has risen significantly in many Member States
  over recent years. In the countries where data was collected, public
  procurement constituted an average of 33% of total turnover in the sector.
- Key features and drivers in the cleaning service sector include the expansion of outsourcing; cost-led contracting and over-representation of part-time (and very short part-time) employment. The sector is also particularly sensitive to wage regulations due to high labour costs.
- Competition on price has forced cleaning services to invest in new technologies to offer efficiency and cost reduction.
- Sustainable practices in the cleaning service industry are driven by resource and cost saving opportunities, government policies, voluntary standards and market demand.

# 1.2.3 Key environmental and social hotspots and improvement potential

Environmental and social impacts associated with all types of cleaning services were investigated in the technical and environmental analysis of the Preliminary Report. Environmental hotspots for the cleaning services components, i.e. cleaning products, supplies and accessories, cleaning operations/power equipment, road transport and operational management were identified and summarised in <u>Table 2</u>.

Table 2 Main environmental hotspots of cleaning services

Cleaning service components	Environmental hotspots	
Cleaning products, supplies and accessories	Cleaning product formulation (raw materials)  Packaging of cleaning products  Raw material use, manufacturing and end-of-life of disposable cleaning supplies	
Cleaning operations/power equipment	Energy and water consumption in the use phase of cleaning products and the power equipment	
Road transport	Energy consumption and air emissions of road transport	
Operational management	Wastewater discharge related to the used of cleaning products  Waste treatment (solid and liquid waste sorting and collection)	

Several social impact considerations were identified:

- Wage regulation As a labour cost intensive industry, wage regulations and policies have a direct impact on the work and living quality of cleaning service employees.
- Cost-led contracting High pressures on cost are imposed on the cleaning service provider from clients, which can drive down profit margins and affecting service quality. However, the cleaning services EU Ecolabel might not be able to address cost-led contracting directly as it is a market issue rather than an operational one.
- **Health risks** Employees in the cleaning services industry have increased health risks due to exposure to chemicals.
- **Staff training** Adequate staff training can significantly improve the efficiency and environmental performance of cleaning services. Staff training may be useful by leading to practices that reduce the environmental impact of the services and also on the reduction of the risk to health.

Potential improvements of cleaning services were identified in the Preliminary Report, and have been used to inform the development of the EU Ecolabel Criteria. A summary of improvement potential for cleaning services is provided in <u>Table 3</u>.

#### Table 3 Summary of improvement potential areas for cleaning services

#### Cleaning products, supplies and accessories

Use of cleaning products with lower environmental impact

Cleaning product concentration at purchase

Recycled content in cleaning supplies

Packaging

Cleaning product dosing

Cleaning cloths, mops and rags

#### Cleaning operations/ power equipment

Water use

Energy use (water heating and power equipment)

Staff uniforms

#### **Road transport**

Vehicles fleet

#### **Operational management**

Staff training

Solid waste collection, disposal and recycling

Wastewater discharge

Working environment and practices

#### **Social**

Wage policy

Cost-led contracting

Labour standards

#### 2 Overview of Criteria Areas and Criterion

'Cleaning services' is a new product group and the EU Ecolabel criteria areas and criterion are being developed for the first time. The new EU Ecolabel for cleaning services covers four types of cleaning services: floor, sanitary, surface and glass/window cleaning. The identification and development of criteria areas presented in this report were informed by the research in the Preliminary Report. These criteria represent where significant environmental and social impact improvements could be made. These are summarised in <u>Table 4</u>.

Table 4 Proposed EU Ecolabel criteria areas and criterion for cleaning services

Criteria areas	# criterion		Evidence in the Preliminary Report
	1	Use of cleaning products with lower environmental impacts	Section 3.2.5.2 (LCA results); Section 4.2.1.1 (improvement options)
	2	Use of cleaning supplies and accessories with lower environmental impact	Section 3.2.5.3 (LCA results)
Cleaning products, supplies	3	Cleaning product concentration at purchase	Section 4.2.1.2 (improvement options)
and accessories	4	Recycled content in disposable cleaning supplies	Section 3.2.5.3 (LCA results); Section 4.2.1.3 (improvement options)
	5	Purchase of more durable and reusable cleaning accessories and supplies	Section 3.2.5.3 (LCA results)
	6	Use of cleaning cloths, mops and rags	Section 4.2.1.6 (improvement options)
Cleaning operations/power equipment	7	Cleaning product dosage	Section 3.2.5.2 (LCA results); Section 4.2.1.5 (improvement options)
	8	Efficiency in activities related with cleaning services (laundry services)	Added in this report

Criteria areas	# criterion		Evidence in the Preliminary Report
	9	Room temperature water in cleaning product dilution	Section 3.2.5.1 (LCA results); Section 4.2.2.2 (improvement options)
	10	Energy efficiency for vacuum cleaners	Section 3.2.5.1and 3.2.5.3 (LCA results); Section 4.2.2.2 (improvement options)
	11	Staff uniforms	Section 3.2.5.1 (LCA results); Section 4.2.2.3 (improvement options)
Road transportation	12	Air emissions and fuel use associated with road transport	Section 4.2.3 (improvement options)
	13	Staff training	Section 4.2.4.1 (improvement options)
	14	Environmental measures and practices	Added in this report
Operational management	15	Waste water discharge	Section 4.2.4.3 (improvement options)
	16	Solid waste collection and sorting	Section 4.2.4.2 (improvement options)
Social	17	Wage policy	Section 4.3. 1 (improvement options)
Jocial	18	Labour standards	Section 4.3. 3 (improvement options)

## 3 Proposal for Criteria Areas and Criterion

## 3.1 Cleaning products, supplies and accessories

## 3.1.1 Criterion 1: Use of cleaning products with lower environmental impact

#### Criterion

At least 70% by volume of general-purpose cleaners and sanitary cleaners used by the cleaning service provider shall have been awarded with the EU Ecolabel or with another ISO Type I ecolabel.

This criterion only covers general-purpose cleaners and sanitary cleaners and aligns with the current revision of the criteria for EU Ecolabel for all-purpose cleaners and sanitary cleaners

#### Assessment and verification

The applicant shall provide annually documentation/written statements on compliance, including the quantities (volume) of cleaning products (i.e. general-purpose cleaners and sanitary cleaners) purchased, quantities (volume) of cleaning products (i.e. general-purpose cleaners and sanitary cleaners) awarded with the EU Ecolabel or with an ISO Type I ecolabel purchased and relevant invoices of cleaning products (i.e. general-purpose cleaners and sanitary cleaners) including quantities, dates and types of products purchased.

#### Rationale

The proposed threshold for cleaning services has been set at 70% of products used to carry the EU Ecolabel or other ISO type of Ecolabels. This aligns with existing requirements in ISO type I Ecolabels for cleaning services in Europe (see <u>Table 5</u>).

Table 5 Minimum proportion thresholds set by other ecolabelling schemes

Ecolabel	Subject	Threshold
Nordic Ecolabelling of Cleaning Services	Chemicals	Higher than 50% (volume)
Green Seal's Environmental Standard for Commercial Cleaning Services	General-purpose cleaners, floor cleaners, restroom cleaners, glass cleaners, and carpet cleaners Floor finishes and floor strippers.	100% <sup>a)</sup>

<sup>&</sup>lt;sup>a)</sup> The scheme states that cleaning service providers "shall use only environmentally preferable products"

It is estimated that 590 000 tonnes of cleaning products (including detergents, dewaxers, emulsions/floor waxes, sanitisers/disinfectants and air fresheners) are used annually by the EU industrial and institutional (I&I) cleaning service sector (see Preliminary Report, Chapter 2). Therefore, it is important to encourage the cleaning service industry to use ecolabelled products as much as possible.

The use of cleaning products is identified as an environmental hotspot for cleaning services. There are numerous studies on the environmental impacts associated with cleaning products. Kapur et al (2012) highlights that cleaning products have dominant impacts on human toxicity and ecotoxicity, whilst ADEME (2010) concludes that the manufacturing of cleaning products is an environmental hotspot for sanitary cleaning.

The use of ecolabelled cleaning products by the cleaning service sector provides a reliable way to identify sustainable cleaning products, as they provide strict limitations on chemical composition and formulations for products. Literature review indicates that the budget implication of using sustainable/ecolabelled cleaning products is estimated to be insignificant. The City of Luxembourg estimates that cleaning products represented only 3-8% of total cleaning contract value (European Commission, 2014b). The additional cost of using cleaning products with a lower environmental impact (e.g. ecolabelled) instead of traditional products is estimated to be marginal.

For the development of the minimum proportion threshold of ecolabelled cleaning products used within a cleaning service provider's product inventory, the ecolabels listed in **Table 5** were considered. Market data suggests that ecollabeled cleaning products are easily accessible. As of September 2014, about 2,400 all-purpose and sanitary cleaning products were awarded an EU Ecolabel (ECAT, 2014).

## **Questions to stakeholders**

- The feasibility of proposed thresholds
- The accessibility of ecolabelled cleaning products



## 3.1.2 Criterion 2: Use of cleaning supplies and accessories with lower environmental impact

#### **Criterion**

A percentage of paper and textile cleaning supplies and accessories used by the cleaning service provider shall have been awarded with the EU Ecolabel or with another ISO Type I ecolabel. The percentage for textiles and paper shall be as follows: Drying paper (paper towels and toilet paper) shall be at least 100%. The proportion for textile hand towel rolls shall be at least 50% and for cloths and mops at least 70%.

#### Assessment and verification

The applicant shall provide annually documentation/written statements on compliance, including the quantities (unit) of cleaning supplies and accessories (e.g. paper towels, mops, etc.) purchased, quantities (unit) of cleaning supplies and accessories (e.g. paper towels, mops, etc.) awarded with the EU Ecolabel or with an ISO Type I ecolabel purchased and relevant invoices of cleaning supplies and accessories (e.g. paper towels, mops, etc.) including quantities, dates and types of products purchased.

#### **Rationale**

The proposed threshold for paper towels and toilet paper has been set at 100% for the EU Ecolabel or other ISO type of Ecolabels. The proposed threshold for textile hand towel rolls has been set at 50% for the EU Ecolabel or other ISO type of Ecolabels. For mops the proposed threshold has been set at 70% for the EU Ecolabel or other ISO type of Ecolabels. This aligns with existing requirements in ISO type I ecolabels for cleaning services in Europe (see Table 6,7).

The use of cleaning supplies and accessories is identified as an environmental hotspot for cleaning services, see ADEME (2010). The main types of materials used in cleaning supplies and accessories are: paper, textiles and plastic. This criterion only covers paper and textiles. The use of ecolabelled cleaning supplies and accessories provides a reliable way to identify sustainable cleaning supplies and accessories. Ecolabel schemes for paper and textile cleaning supplies and accessories are available in Europe, with some examples highlighted in <u>Table 6</u>.

Table 6 Example of Ecolabel schemes for some cleaning supplies and accessories

Product Group types	Ecolabels	
Paper products	EU Ecolabel for tissue paper	
	Nordic Ecolabelling for tissue paper	
	Blue Angel Ecolabel for Sanitary Paper Products (including cleaning rags, kitchen rolls, paper towels, sanitary paper and toilet paper)	
Textile products	EU Ecolabel for textiles	
	Nordic Ecolabelling for textiles, skins and leather	
	Blue Angel Ecolabel for Fabric Towel Rolls	

At present due to lack of market data availability of ecolabelled cleaning supplies and accessories the threshold was determined by investigating other labelling schemes. This analysis will need further investigations. The proposed minimum proportion thresholds of this criterion are in line with Nordic Swan's criterion on ecolabelled cleaning supplies and accessories (see <u>Table 7</u>).

Table 7 Nordic Swan's minimum proportion threshold for cleaning supplies used in cleaning services

Cleaning supplies	Minimum proportion thresholds
Drying paper (paper towels and toilet paper)	At least 90% (no specific units identified)
Textile hand towel rolls	At least 50% (no specific units identified)
Cloths and mops	At least 70% (no specific units identified)

#### **Questions to stakeholders**

- The feasibility of proposed thresholds
- The accessibility of ecolabelled cleaning supplies and accessories
- Other supplies and accessories to be considered

#### 3.1.3 Criterion 3: Cleaning product concentration at purchase

#### Criterion

At least (...) % by volume of all cleaning products purchased shall be concentrated with at least 30% of active substance.

#### Assessment and verification

The applicant shall provide annually data and documentation (including relevant invoices) indicating the total quantities of cleaning products used and the total quantities of concentrated cleaning products purchased together with the concentration levels of them.

#### **Rationale**

General evidence shows that for the same amount of active substances, the weight required to be transported for diluted products is substantially higher than concentrated products, resulting in larger environmental impacts associated with the use of more material to packaging and the fuel uses in transportations. Initial stakeholder consultation also indicates that a trend to use of more concentrated products exist also due to the lower price of these when compared to no concentrated products. The purchasing of concentrated cleaning products can realise the environmental benefits on packaging reduction (less packaging is required for concentrated products because less liquid is being transported (resulting in a smaller pack to product ratio) and in reducing transport impacts – less liquid means less truck loads are needed, reducing fuel consumption, greenhouse gas and particulate matter emissions.

The information collected for Europe indicates that concentrated cleaning products can be categorised into two types (AISE, 2014):

- Concentrated cleaning products consisting of 10% to 20% of active substances.
- Highly concentrated cleaning products consisting of 30% to 60% of active substances.

Stakeholder feedback from interviews has suggested that the minimum product concentration threshold of the criterion needs to be set at an appropriate level. Highly concentrated products are more suitable for use at larger cleaning sites, as they can be diluted into large volumes. The proposed minimum concentration of 30% of active substance aligns with existing Ecolabel schemes for concentrated products used in cleaning services (as Nordic Swan). The appropriateness of this threshold has also been confirmed by an initial stakeholder consultation (A.I.S.E., 2014).

#### **Questions to stakeholders**

- Feasibility of the proposed % of concentrated and highly concentrated cleaning products
- Feasibility of concentrated product storage and distribution arrangement to client sites
- Feasibility for setting thresholds in a more strict relation to the categorisation types for concentrated cleaning products



#### 3.1.4 Criterion 4: Recycled content in disposable cleaning supplies

This is considered to be a potential criterion to be investigated for its feasibility during the Ad-hoc meeting and with further research. For this reason no threshold is at the moment proposed. Background information is provided below to give an insight on the general environmental benefits of using plastics with a recycled content whenever possible.

#### **Background information / evidence**

The use of raw materials and the manufacture of cleaning supplies, especially disposable plastic supplies such as gloves and bin bags were identified as environmental hotspots. Bin bags can account for up to 78% of abiotic resource depletion impact and 67% of energy consumption (ADEME, 2010). On the other hand, disposable vinyl gloves can also contribute significantly to the environmental impact of cleaning services. The impact is mainly associated with the manufacturing stage (ADEME, 2010). When disposable vinyl gloves are used in a cleaning task, it can be accounted for up to 62% of ozone layer destruction impact (ADEME, 2010). The environmental impacts associated with the use of disposable cleaning supplies can be reduced by using supplies with high recycled content.

<u>Table 8</u> provides a comparison of the environmental impacts associated with virgin and recycled materials to illustrate how by increasing the recycled content of a product, the environmental impact can be reduced (Defra, 2014).

Table 8 Comparison of the carbon impact of virgin and recycled plastic and paper (Defra, 2014)

Generic materials	Climate change (kgCO₂e/kg)
Plastic	
Virgin plastic	3.18
Recycled plastic	1.98

Green Seal's Environmental Standard for Commercial Cleaning Services and the Australian Sustainable Procurement Product Guide for Cleaning Services specify that the minimum threshold of post-consumer recycled content for bin bags is 10%. However, the German Ecolabelling scheme Blue Angel requires that the percentage of recycled plastics (post-consumer material) in the finished products shall be at least 80% (The Blue Angel, 2012).

#### **Questions to stakeholders**

- Feasibility of this potential criterion
- Products which might be covered by this criterion (Products with short life times as bin bags, plastic gloves).
- Appropriate threshold of recycled content for the products in focus

## 3.1.5 Criterion 5: Purchase of more durable and reusable cleaning accessories and supplies

This is considered to be a potential criterion to be investigated for its feasibility during the Ad-hoc meeting and with further researches. For this reason no threshold is at the moment proposed. Background information is provided below to give an insight on the general environmental benefits of using more durable and reusable accessories and supplies whenever possible.

#### **Background information / evidence**

The use of single use cleaning supplies is an environmental hotspot for cleaning services. For example, the manufacturing of disposable vinyl gloves has shown to have a high environmental impact and when used, can account for up to 62% of ozone layer destruction impact of a particular cleaning activity (ADEME, 2010).

More durable and reusable cleaning supplies and accessories shall be used (wherever appropriate) for routine cleaning tasks, to extend product lifespan. Single or short term use of disposable accessories and supplies (e.g. cleaning cloths, vinyl gloves, wipes) with short life should be avoided.

The objective of this criterion is to encourage applicants to reduce the use of short life cleaning accessories (e.g. short life cleaning cloths) and supplies (e.g. short life vinyl gloves, wipes) by using products which are more durable or reusable. This should result in reduced material consumption and waste generation.

This criterion does not seek to eliminate the use of single use cleaning supplies when they cannot be easily replaced. It focuses on routine cleaning tasks, which can be handled effectively by reusable cleaning accessories. Staff training materials can also assist on demonstrating that appropriate selection and use of more durable and reusable cleaning accessories have environmental benefits.

Other schemes, such as the Green Seal's Environmental Standard for Commercial Cleaning Services recognises the use of reusable cleaning accessories and supplies as a way to reduce solid waste. The Green Seal Standard's criterion on reusable materials requires applicants to use reusable cleaning cloths or microfiber cloths instead of paper products whenever practicable (Green Seal Inc., 2011).

#### **Questions to stakeholders**

Stakeholders shall comment on the following aspects:

- The feasibility of replacing short life time products with ones with a longer lifetime. ( for instance. cleaning accessories (e.g. short life cleaning cloths) and supplies (e.g. short life vinyl gloves, wipes)

### 3.1.6 Criterion 6: Use of cleaning cloths, mops and rags

#### Criterion

Cleaning cloths, mops and rags which lead to reduced water and cleaning products use shall be used.

#### Assessment and verification

The applicant shall provide annually documentation/written statements such as relevant invoices to provide evidence on the use of cloths, mops and rags with a reduced use of water and which imply less cleaning products use by listing them and the annual quantities by unit used.

#### **Rationale**

Water depletion, eutrophication and ecotoxicity are key environmental impacts associated with the use of water and cleaning products in cleaning services (Preliminary Report, chapter 3).

Stakeholders have demonstrated that with the appropriate use of efficient and effective cleaning accessories and supplies, water and cleaning product use can be reduced. For example, the use of microfiber cloths has quickly been adopted by the cleaning service industry as they effectively pick up soil and require small amounts of cleaning products and water. The Australian Sustainable Procurement Product Guide for Cleaning Services estimates that the use of reusable microfiber cloths can also lead to labour cost reductions of up to 10% for the cleaning service provider (Queensland Government Chief Procurement Office, 2010). The cleaning service industry currently makes uses of cleaning cloths, mops and rags that show to be beneficial to water and cleaning products uses (e.g. microfibre clothes for surface cleaning, larger microfibre towels for floor cleaning and ultra microfibre clothes for glass, mirrors and display cleaning).

This criterion does not aim to standardise how resource saving is being estimated in the cleaning services industry. Instead, this criterion requires applicants to demonstrate a proactive approach to measuring and improving their resource efficiency through the use of cleaning cloths, mops and rags beneficial for water and cleaning products consumptions.

#### **Questions to stakeholders**

- Feasibility to set a threshold (minimum percentage used) for this criterion. The unit to be uses in the report referring to the supplies or accessories used (weight or the % of the total purchases)
- Insight on the current adoption of such products in delivering cleaning services (e.g. microfibers)
- Other resource efficient products that should considered by this criterion

## 3.1.7 Analysis of implications for the revision of the EU GPP for cleaning services

The EU Green Public Procurement is a voluntary instrument for stimulating the growth of eco-innovation through providing guidelines for public authorities to purchase environmental goods, services and works.

The existing EU GPP criteria for cleaning services consider together but in a distinctive way cleaning products and services on cleaning products, while the new proposed criterion for the EU Ecolabel for cleaning services aims to address the environmental impacts of cleaning services products within the service itself, in a more holistic sense. The similarity between the proposed EU Ecolabel and the current EU GPP criteria is that both require the use of ISO Type I ecolabelled cleaning products as a way to verify the use of sustainable cleaning products.

The alignment of the EU Ecolabel for cleaning services with the GPP comprehensive criteria will have implications on the coverage of cleaning products. The EU Ecolabel for cleaning services' coverage on cleaning products aligns with the scope of the EU Ecolabel for all purpose cleaners and sanitary cleaners, which means that other detergent products that are originally in scope in the existing GPP comprehensive criteria will not be covered if the alignment is to be implemented. This should be discussed in the 1<sup>st</sup> AHWG meeting by public sector and industry stakeholders.

<u>Table 9</u> shows the current existing EU GPP criteria for the Products Groups All-purpose Cleaners, Sanitary cleaners, Windows cleaners and Cleaning Services.

Table 9 Current existing EU GPP criteria for the Products Groups All-purpose Cleaners, Sanitary cleaners, Windows cleaners and Cleaning Services

Product groups:	All- purpose Cleaners	Sanitary cleaners	Windows cleaners	Cleaning Services	All- purpose Cleaners	Sanitary cleaners	Windows cleaners	Cleaning Services
Criterion description:		GPP (core criteria)			GPP (comprehensive criteria)			
Excluded or limited substances:								
Substances of very high concern (Reach regulation)	✓	✓	✓	<b>✓</b>	<b>√</b>	✓	✓	✓
Substances of very high concern (Hazardous statements or risk					<b>√</b>	<b>√</b>	<b>~</b>	<b>√</b>
phrases) Limited substances:								
Phosphorus Biocides (no					<b>*</b>	√ √	<b>V</b>	✓ ✓
preservatives) Biocides (others related with					<b>*</b>	✓	✓	✓
bioaccumulation) Critical dilution volume (CDV)					<b>V</b>	· ·	✓	✓
Packaging requirements:								
Dosing instructions	<b>/</b>	•	<b>*</b>	Y	<b>V</b>	<b>V</b>	<b>\</b>	<b>✓</b>
No use spray with propellers Triggers sprays	✓ ✓ ✓ ✓ ✓	, ,		<b>✓</b>	<b>V</b>	<b>v</b>	<b>√</b>	<b>√</b>
sold apart Weight utility ration (WUR)	·	ŕ		,	✓ ·	<i>,</i> ✓	✓	<i>√</i>
Contract clauses:								
Regular report on name and quantity of products used				<b>√</b>				<b>√</b>
Regular training				✓				✓
Work instructions  Nominated Facility manager								✓ ✓
Environmental friendly techniques								<b>√</b>

The proposed criteria area "Cleaning products, supplies and accessories" of the EU Ecolabel for cleaning services includes a criterion on the **use of ecolabelled cleaning products within the scope set for Cleaning Services** i.e., the floor, glass/windows, surface and sanitary cleaning. The objective of this criterion is to encourage the use of awarded ISO Type I ecolabelled cleaning products within Cleaning Services. For that purpose the scope of this criterion aligns for the cleaning products in regard, with the scope of the criteria of the EU Ecolabel for all-purpose cleaners and sanitary cleaners that are now being revised.

In addition, the proposed EU Ecolabel for this criteria area provide specific criterion on the following aspects regarding the sourcing of cleaning products and the sustainability of cleaning supplies and accessories:

- The use cleaning supplies and accessories with lower environmental impact
- Purchase concentrated cleaning products
- Recycled content requirements for cleaning supplies and accessories
- The use of cleaning cloths, mops and rags

Possible implications that the proposed EU Ecolabel criterion for cleaning services may have on the revision of the EU GPP for cleaning services are:

- The EU Ecolabel criteria for all-purpose cleaners and sanitary cleaners (Commission Decision 2011/383/EU) is under revision. Revised criteria will replace the current EU GPP criterion used within Cleaning Services for the cleaning products within the scope (floor cleaning, sanitary cleaning and windows cleaning).
- New subject matters and requirements on cleaning supplies and accessories shall be added, including the use of cleaning supplies and accessories with lower impacts and more durable. The use of cloths, mops and rags that reduce water and cleaning products usage. It is also envisaged recycled content requirements on disposable cleaning supplies.
- New requirements on cleaning product concentration at purchase.

## 3.2 Cleaning operations/power equipment

Cleaning operations and power equipment regards the performance efficiency of cleaning services, such as the efficient delivery of the service. It focuses on the requirements for cleaning products dosage, the use of water and energy (e.g. power equipment use), but also looking at the staff uniforms used in supplying the service. This section provides requirements on the types of sustainable cleaning operations that applicants should demonstrate.

The training requirements to ensure that cleaning staff is equipped to deliver sustainable cleaning services are covered in the criteria area Operational Management.

### 3.2.1 Criterion 7: Cleaning product dosage

This is considered to be a potential criterion to be investigated for its feasibility during the Ad-hoc meeting and with further researches. For this reason no threshold is at the moment proposed. Background information is provided below to give an insight on the general environmental benefits of using dosage systems whenever possible.

#### **Background information / evidence**

Cleaning service providers are encouraged to minimise the use of cleaning products by maximising the efficiency of cleaning product use leading also to environmental benefits. Dosage systems are available for concentrated products, which use the minimum amount of cleaning products to encourage the correct dilution for an appropriate service quality performance.

Stakeholders consultation from the industry indicate that cleaning staff often use more cleaning products than is required for cleaning tasks, which:

- Increases environmental impacts associated with the use of cleaning products;
- Increases cleaners' exposure to cleaning products;
- In increases cost and reduces resource efficiency and;
- Increases chances of damaging the surfaces.

The overuse of cleaning products is not just an environmental concern but also a health and safety concern. As a result, industry stakeholders have expressed that they are actively looking for ways to reduce their cleaning products consumption. <u>Table 10</u> shows in some ecolabelling schemes for cleaning services criteria on dosing control.

Table 10. Ecolabelling schemes for cleaning services including criteria on dosing control

Ecolabel	Criterion
Green Seal's environmental standard for commercial cleaning services	Use a chemical measuring and dilution control system that limits worker exposure to chemical concentrates while facilitating the proper dilution of chemical concentrates.
Nordic Ecolabelling of cleaning services	To ensure correct dosage, all personnel must have access to dosage devices or measuring beakers in the area in which cleaning is performed. This must be a part of the procedures of the business.

### **Questions to stakeholders**

- Feasibility of setting maximum chemical consumption threshold (e.g. for other labelling schemes: the chemical consumption in excess of 640  $\mu$ l (microliter)/m² is not permitted)
- Dosing devices used for concentrated cleaning products?
- Dosage setting for different concentrated cleaning products used.

# 3.2.2 Criterion 8: Efficiency in activities related with cleaning services (laundry services).

#### Criterion

The following requirements shall be met for the total amount (by value) of the external laundry services purchased and for the purchase of new and the use of existing washing machines owned by the cleaning service providers.

<u>Sub-Criterion 8A</u>: At least (...) % of the total amount (by value) of the external laundry services purchased by the cleaning service provider shall have been awarded an ISO Type I ecolabel.

<u>Sub-Criterion 8B</u>: - All new purchased washing machines for in-house use shall achieve class 'A<sup>+++</sup>' for energy efficiency under the energy labelling regulation for household washing machines ((EU) No 1061/2010.

<u>Sub-Criterion 8C</u>: - At least 50% of the existing in-house washing machines used for laundry services shall comply with at least class 'A' for energy efficiency under the energy labelling regulation for household washing machines ((EU) No 1061/2010).

# Assessment and verification

The applicant shall provide annually data and documentation (including relevant invoices) indicating the quantities (by value) of such laundry services used and the quantities (by value) that have an ecolabelled laundry services.

The applicant shall provide annually documentation/written statements on compliance by identifying the class for energy efficiency for newly purchased and for the existing washing machines.

#### **Rationale**

Water use and energy for washing cleaning accessories (such as mops, cloths and towels) and uniforms is a significant environmental hotspot. ADEME (2010) identified the washing/drying of reusable mop heads as a hotspot for manual floor cleaning of offices and corridors, which accounts for up to 66% of the total water consumption.

The use of **laundry services contracted externally** in the context of cleaning services has not been fully investigated in the reviewed LCA studies, and as such the criterion developed for using external laundry services aligns partially with criteria proposed by another ecolabelling scheme for cleaning services. The Nordic Swan ecolabelling scheme for cleaning services requires that all laundry services purchased by cleaning service providers should be ecolabelled. However, the accessibility of these services could be significantly different between countries and locations.

Applicants of the EU Ecolabel for cleaning services should purchase their laundry services from ecolabelled laundry service providers, which is a simple and effective way to ensure the sustainability performance of their subcontractors.

For the cases where cleaning services providers use **in-house washing machines for laundry**, the washing of cleaning accessories, such as cloths and mops, is an environmental hotspot for cleaning services due to energy and water consumption (ADEME, 2010). However, the data regarding the environmental impact specially contributed by the washing of cleaning accessories was not disclosed by the report.

Initially, washing machines were not considered within scope as they are not used to deliver cleaning services directly. However, as they are frequently used by the sector for washing cleaning accessories it was subsequently deemed appropriate to include within the scope of the EU Ecolabel for cleaning services

Even though the ecodesign (Commission Regulation (EU) No 1015/2010) and energy labelling (Commission Delegated Regulation (EU) No 1061/2010) regulations are for household washing machines, it was felt that they should be the main regulations cleaning services providers should comply with. A 'household washing machine' is defined as an automatic washing machine which cleans and rinses textiles using water, and has a spin function which extracts water (Commission Delegated Regulation (EU) No 1061/2010). As household washing machines are used by cleaning service teams on clients sites these regulations are relevant for professional cleaning services.

The feasibility of upgrading existing washing machines was considered, and it was decided that it might not be feasible to upgrade machines immediately due to significant requirement on investment. Therefore, this criterion is divided into two subcriteria for: a) new washing machines (Criteria 8B) and b) existing washing machines (Criteria 8C). For existing washing machines, it is proposed that machines with "A" energy class or above should account for at least 50% of the total household washing machine population owned by the applicant. On the other hand, all new washing machines should have A<sup>+++</sup> energy class. Data shows that the uptake of A<sup>+++</sup> washing machines has grown rapidly between 2011 and 2013, from 8% to 22% and the purchasing of these machines is feasible (GFK, 2013). Therefore, all new washing machines purchased should be awarded an A+++ energy class.

In terms of market availability (Topten b, 2014) in Europe illustrates that for washing machines (<8kg, for 8kg and >8kg capacity) the class A+++ is currently available in Europe.

# **Questions to stakeholders**

- Relevancy of this criterion (e.g. do cleaning service providers own washing machines and making use of domestic laundry machines)
- The accessibility of ecolabelled laundry services. Discuss the value of 50% (feasibility of this threshold)
- Feasibility of requirements on energy labelling compliance (i.e. 50% 'A' class for existing washing machines, 100% 'A<sup>+++</sup>' class for new washing machines)
- Means to verify the energy class for the in-house washing machines currently owned by the cleaning services companies



# 3.2.3 Criterion 9: Room temperature water in cleaning product dilution

This is considered to be a potential criterion to be investigated for its feasibility during the Ad-hoc meeting and with further researches. For this reason no threshold is at the moment proposed. Background information is provided below to give an insight on the general environmental benefits of using room temperature water in cleaning product dilution whenever possible.

# **Background information / evidence**

LCA studies and stakeholder feedback suggests that heated water is commonly used for cleaning product dilution. The Preliminary Report for the revision of the EU Ecolabel of all-purpose and sanitary cleaners (EC JRC, 2014) suggests that the use of hot water for product dilution and rinsing is an environmental hotspot due to the energy used to heat the water.

Stakeholder feedback has suggested that hot water is not required for cleaning product dilution and does not enhance cleaning efficiency. As such, it is recommended that cleaning service providers should prevent that heated water is used in cleaning tasks.

As the on-site verification for not using heated water in cleaning services would be difficult, it is more practical to ensure that the use of room temperature water for cleaning product dilution is appropriately covered and included in staff training. In addition, to reduce the use of heated water for cleaning product dilution the staff training materials shall demonstrate that the use of room temperature water for cleaning product dilution is clearly covered (as indicated in <u>Criterion 13: Staff training</u>).

#### Questions to stakeholders

- Feasibility of setting a criterion for use of cleaning products that can be diluted with 'room temperature' water
- Monitoring the use of water and more specifically on the hot water used in cleaning services

# 3.2.4 Criterion 10: Energy efficiency for vacuum cleaners

#### Criterion

All new purchased vacuum cleaners shall achieve an annual energy consumption (AE) <= 16 [kWh/yr] when determined according to the most updated energy labelling regulation for vacuum cleaners.

# Assessment and verification

The applicant shall provide annually a list of the new vacuum cleaners purchased (including relevant invoices) and documentation indicating regulation compliance.

#### **Rationale**

Energy consumption of vacuum cleaners has been identified as an environmental hotspot (ADEME, 2010; Consorcio Soligena, 2011). Depending on cleaning situation, the energy consumption of floor cleaning can account for up to 52% of the total energy consumption for cleaning services, of which vacuum cleaners are a major contributor (ADEME, 2010). Vacuum cleaners are the most frequently used pieces of energy-powered equipment used by the sector.

To reduce the environmental impact associated with using vacuum cleaners, it is proposed that the latest energy labelling and ecodesign regulations should be used to ensure improved performance efficiency of vacuum cleaners.

It is proposed that this product coverage should align with current regulations on cleaning equipment, namely Commission Delegated Regulation (EU) No 665/2013 of 3 May 2013 supplementing Directive 2010/30/EU with regard to energy labelling and Commission Regulation (EU) No 666/2013 of 8 July 2013 implementing Directive 2009/125/EC with regard to ecodesign requirements for vacuum cleaners. Electric mains-operated vacuum cleaners, including hybrid vacuum cleaners, are covered by these regulations and are defined as follows:

- Vacuum cleaner an appliance that removes soil from a surface to be cleaned by means of an airflow created by underpressure developed within the unit;
- Hybrid vacuum cleaner a vacuum cleaner that can be powered by both electric mains and batteries:

These regulations do not apply to wet, wet and dry, battery operated, robotic, industrial or central vacuum cleaners, or floor polishers and outdoor vacuums.

The following environmental aspects associated with vacuum cleaners are covered in energy labelling regulations:

- **Energy efficiency** This indicates how much energy the product uses. Energy efficiency classes are given to vacuum cleaners according to their annual energy consumption in kWh/year.
- **Carpet Pick-Up** How efficient the product is at picking up dirt off a carpet, calculated in dust pick up (dpu)\*.
- **Hard Floor Pick-Up** How efficient the product is at picking up dirt off hard floors, calculated in dust pick up (dpu)\*.
- Dust re-emissions This is how well the vacuum cleaner will capture dust particles. This is defined as the ratio of the number of dust particles from 0.3 to 10 µm emitted by a vacuum cleaner to the number dust particles of the same size range entering the suction inlet when fed with dust of that particle size range.
- **Sound power level (noise)** The emissions of airborne acoustical noise emissions, expressed in dB(A) re 1 pW.
- \* 'Dust pick up' (dpu) means the ratio of the mass of the artificial dust removed, determined for carpet through the mass increase of the appliance dust receptacle and for hard floor through the mass decrease of the test crevice, after a number of double strokes of the cleaning head, to the mass of artificial dust initially applied to a test area, for carpet corrected for the specific test conditions and for hard floor corrected for the length and positioning of the test crevice.

The scope of this EU Ecolabel criterion is in full compliance with Commission Regulation (EU) 665/2013 and 666/20113, therefore it does not cover other floor cleaning equipment such as carpet extractors, rotary floor machines and wet pick-up machines. The energy use of cleaning equipment is also addressed by <a href="Criterion 13">Criterion 13</a>: Staff training.

By setting the threshold on AE < 16 it meant to assure that it will cover the energy efficiency class A++ and A+++ after 2017 and it will consider only the energy efficiency class A before 2017 (Commission Delegated Regulation (EU) No 665/2013). In terms of market availability (Topten a, 2014) in Europe illustrates that domestic vacuums cleaner's class A are currently in Europe.

# **Questions to stakeholders**

Stakeholders shall comment on the following aspects:

- Feasibility and time lines to include other types of powered equipment used in cleaning services falling in the scope of this project

#### 3.2.5 Criterion 11: Staff uniforms

This is considered to be a potential criterion to be investigated for its feasibility during the Ad-hoc meeting and with further researches. For this reason no threshold is at the moment proposed. Background information is provided below to give an insight on the general environmental benefits of using staff uniforms that may reduce the environmental impact whenever possible.

Specific criterion used in eco labelling schemes for textiles will be further researched to provide evidence to define this criterion.

# **Background information / evidence**

Uniforms are used as livery for most cleaning service companies, making it a significant improvement opportunity. The EU Ecolabel for textiles is a comprehensive ecollabelling scheme and covers a range of different fibres and provides criteria on:

- A limited use of substances harmful to environment
- Use of natural or environmental friendly raw materials
- Recycled content
- Manufacturing efficiency (related to energy use and waste discharge of processes such as washing, drying and curing)

# **Questions to stakeholders**

Stakeholders shall comment on the following aspects:

- The accessibility of ecolabelled staff uniforms

# 3.2.6 Analysis of implications for the revision of EU GPP criteria for cleaning services

The EU GPP criteria for cleaning services covers some elements of the criteria covered by this criteria area. The following operational best practice requirements related to the use of cleaning products is common between this criteria area and the EU GPP requirements:

- While the EU GPP criteria has specific dosage requirements for different cleaning products, this EU Ecolabel addresses the same issue and requires applicants to adopt appropriate dosing systems (e.g. measuring cups and automated dosing systems) as in <u>Criterion 7: Cleaning product dosage</u>.
- Temperature of water used for cleaning product dilution is covered by both documents. The EU GPP criteria recommends the use of cleaning products that are effective at lower temperatures and <u>Criterion 9: Room temperature water in</u> <u>cleaning product dilution</u> of this EU Ecolabel requires applicants to use water at room temperature.

The following aspects covered by this criteria area are new to the EU GPP:

- Water reduction and energy efficiency in laundry services
- Energy efficiency labelling for vacuum cleaners
- Staff uniforms

The proposed EU Ecolabel criteria for cleaning services may have the following implications on the revision of the EU GPP for cleaning services:

- The requirements on cleaning product dosing is likely to remain unchanged in the EU GPP criteria.
- New subject matter and requirements on water reduction and energy efficiency in laundry services are likely to be added to the EU GPP (in relation to Criterion 8). Energy use in laundry equipment is significant and should be addressed through GPP.
- New subject matter and requirements on the use of room temperature water for cleaning product dilution are likely to be added to the EU GPP (in relation to Criterion 9). Energy use by the use of warm water for cleaning product dilution is significant and should be addressed through GPP. New subject matter and requirements on power cleaning equipment are likely to be added to the EU GPP (in relation to Criterion 10). Energy use by powered equipment is significant and should be addressed through GPP.
- New requirements for staff uniforms are likely to be added to the EU GPP.

# 3.3 Road transport

# 3.3.1 Criterion 12: Air emissions and fuel use associated with road transport

#### **Criterion**

The cleaning service provider shall meet the following three sub-criteria on air emissions and fuel quality for road transport:

- Sub-criterion 12A: All new purchased vehicles purchased by applicants shall meet the most current Euronorm standards for light commercial vehicles
- Sub-criterion 12B: The carbon emissions of all new vehicles purchased by the cleaning service provider shall equal or lower than 175g CO<sub>2</sub>/km by 2017 and 147g CO<sub>2</sub>/km by 2020.
- Sub-criterion 12C: Fuels with lower carbon intensity, such as biofuels, electricity, fossil fuels (such as gaseous fuels) and those with lower feedstock extraction impacts (e.g. reduction in flaring and venting) shall be used

# Assessment and verification

The applicant shall provide documentation for the new vehicles either in the form of a declaration from the manufacturer or official vehicle specifications.

#### Rationale

Evidence from stakeholders and other current labelling schemes note that transport of cleaning staff and equipment between cleaning sites was identified as having a significant environment impact. Local sourcing of cleaning products and cleaning suppliers has also been raised by stakeholders as good practice, as they are used in large volumes and the cumulative transportation impact could be substantial if sourced a long distance from use. By sourcing cleaning products and supplies locally the environmental impact associated with long distance transportation could also be reduced. EU environmental standards for vehicles are the main instruments for ensuring good environmental performance of vehicles.

For air emissions it is proposed that this criterion aligns with this the Euronorm standard. The current Regulation (EC) No 715/2007 provides the Euro 5 and Euro 6 emissions standard for light passenger and commercial vehicles, which are designed to reduce emissions of particulate matter and ozone precursors such as nitrogen oxides and hydrocarbons.

The Nordic Swan Ecolabel for cleaning services has an obligatory requirement for Euronorm vehicles to a minimum of 95% of the total fleet of vehicles or an alternative **Development of EU Ecolabel Criteria and Revision of EU GPP criteria for Cleaning Services** 

of at least 95% of the companies' total driven kilometres per year should meet the Euronorm standard.

The criterion set for fuel consumption for vans (light commercial vehicles) is covered by Regulation (EU) No 510/2011 (European Commission, 2014c), which limits  $CO_2$  emissions from new vans to a fleet average of 175g of  $CO_2$ /km by 2017 and 147g/km by 2020. These targets represent reductions of 3% and 19% respectively compared with the 2012 average of 180.2 g  $CO_2$ /km. The 2017 target is equivalent to 6.6l/100km of diesel and the 2020 target to 5.5 l/100km of diesel.

Fuel quality is an important element in reducing transport greenhouse gas emissions. EU legislation requires the greenhouse gas intensity of vehicle fuels to be cut by up to 6% by 2020 (European Commission, 2009b). This criterion encourages the use of biofuels, electricity, fossil fuels with lower carbon intensity (such as gaseous fuels) and with a lower feedstock extraction impacts (e.g. reduction in flaring and venting).

The development of this criterion has considered the feasibility for cleaning service providers to upgrade their fleet. The cost-driven nature of the industry means that vehicle upgrades might not be a viable option for a significant proportion of potential applicants. Therefore it is proposed that the criterion should apply to new vehicle purchase. Vehicles upgraded shall comply with the air emissions and fuel consumption requirements of this criterion.

# **Questions to stakeholders**

Stakeholders shall comment on the following aspects:

- Feasibility of the proposed criterion

# 3.3.2 Analysis of implications for the revision of the EU GPP criteria for cleaning services

Road transport is a new topic for the EU GPP criteria for cleaning products and services. New subject matter and associated criteria on vehicle air and carbon emissions and fuel quality is proposed to be added to the current EU GPP criteria for cleaning services. The environmental impacts of transportation in the context cleaning services have not been investigation in any literatures. However, stakeholders have identified it as a significant environmental hotspot to be addressed.



# 3.4 Operational management

# 3.4.1 Criterion 13: Staff training

#### Criterion

The cleaning service provider shall make available information and training to staff, including written procedures or manuals, to ensure the efficient delivery of cleaning tasks and to raise awareness of environmentally responsible behaviour. In particular, staff training should cover the following areas:

# Cleaning products:

- Staff shall be trained not to exceed the minimum dilution ratio of cleaning products as defined by using dosing systems as covered by <u>Criterion 7: Cleaning product dosage</u>
- Minimisation of the range of cleaning products used as a mean to minimise the risk of overuse and misuse of cleaning products shall be covered.

# **Energy saving:**

- Staff shall be trained to use room temperature water at for diluting products.
- Staff shall be trained to use the appropriate cycle and temperature for washing machines.

# Water saving:

— Staff shall be trained to use water efficient cleaning accessories (e.g. microfiber cloths) to minimise water use and cleaning products used.

# Waste:

- Staff shall be trained to select appropriate durable and reusable cleaning accessories to minimise the use of single use cleaning supplies.
- Staff shall be trained to correctly discharge waste water.
- Staff shall be trained to collect and separate non-hazardous waste as defined by Criterion 16: Solid waste collection and sorting.
- Staff shall be trained to collect and separate hazardous waste as listed in Decision 2000/532/EC and defined by <u>Criterion 16: Solid waste collection and sorting</u>

# Health and safety:

— Staff shall be informed on health, safety and environmental issues and encouraged to adopt best practices for cleaning tasks.

# Quality of training:

— Staff training should comply with national training standards for cleaning staff.

### Assessment and verification

The applicant shall provide a declaration of compliance with this criterion, together with details of the training programme (date and type), its content, and number of staff that have undertaken the training. The applicant shall also provide copies of procedures and staff communication concerning all training-related issues. The date and types of the staff training should be recorded as evidence that this training update has been taken. The applicant shall, whenever applicable, provide evidence of national staff training standards compliance.

#### **Rationale**

Stakeholders have identified staff training as one of the most important aspect to be addressed by the EU Ecolabel. While the criteria on cleaning products, operations and power equipment sets standards for efficient cleaning services, this criterion aims to ensure that cleaning staff are capable of delivering efficient and effective cleaning services, with the cleaning service providers implementing appropriate monitor systems to ensure that cleaning staffs deliver cleaning services in an appropriate and efficient manner

Criteria to ensure the quality of cleaning staff training are well-established in other ecolabels for services (such as the EU Ecolabel for tourist accommodation and camp sites services and Nordic Swan and Green Seal for cleaning services).

#### **Questions to stakeholders**

- Comprehensiveness of the criterion covering the key areas in place for cleaning staff training
- Feasibility of defining a "simple" product inventory

# 3.4.2 Criterion 14: Environmental management measures and practices

#### Criterion

The cleaning service provider shall implement environmental management measures and practices.

# Assessment and verification

The applicant shall provide appropriate evidence of environmental management measures and practices in place. Providers registered EMAS or certified ISO 14001 are considered complying with this criterion.

### Rationale

The implementation of an Environmental Management Systems (EMS) is a common requirement for good environmental management, to improve resource efficiency and reduce their environmental impacts.

# **Questions to stakeholders**

Stakeholders shall comment on the following aspects:

- Feasibility for implementing an Environmental Management System

# 3.4.3 Criterion 15: Waste water discharge

#### Criterion

Cleaning staff shall dispose waste water from cleaning activities into the appropriate waste water treatment systems, with staff being trained to identify these channels.

### Assessment and verification

The applicant shall provide a declaration of compliance with this criterion by demonstrate that staff is trained to discharge waste water in appropriate discharge channels.

### **Rationale**

Waste water discharge is identified as an environmental hotspot due to its ecotoxicity and eutrophication impacts. Stakeholders suggest that waste water is often disposed into inappropriate channels (e.g. storm water drains) which could lead to the pollution of water sources and eutrophication.

Criteria to address waste water discharge are specified in other Ecolabels, such as the EU Ecolabel for tourist accommodation and camp sites which specifies that applicants shall inform accommodation guests and staff of the correct disposal of waste water to ensure that it can be treated correctly. The criterion also specifies that a general list of substances should not be disposed with waste water according to the Groundwater Directive 2006/118/EC of the European Parliament and of the Council shall be made available if a waste water plan is not available from the Municipality.

The Green Seal Environmental Standard for Commercial Cleaning Services has no specific criteria for waste water disposal. However, it suggests that for some waste water (e.g. from carpet cleaning) should be adequately disposed in designated cleaning waste sinks or drains.

#### **Question to stakeholders**

- Cooperation between the cleaning service provider and the facility management teams to develop waste water discharge plans.
- Development of a specific waste water discharge plan for individual cleaning sites
- Feasibility of a waste water plan for individual cleaning sites

# 3.4.4 Criterion 16: Solid waste collection and sorting

#### Criterion

Wastes shall be collected and disposed adequately.

# Assessment and verification

The applicant shall provide a declaration of compliance with this criterion, together with an indication of the different categories of waste collected and sorted.

#### **Rationale**

Handling of solid waste is a significant part of cleaning service practices. The ADEME (2010) study suggests that solid waste can account up to 91% of the freshwater ecotoxicity impact of cleaning services.

Criterion that addresses solid waste handling is well-established in other Ecolabels, and aligns with the waste separation criterion set for the EU Ecolabel for tourist accommodation and camp sites. The Green Seal's environmental standard for commercial cleaning services is presented in

<u>Table 11</u>. The Nordic Ecolabel for Cleaning Services requires cleaning service providers to sort waste into at least five fractions.

Table 11 Criteria for waste collection from the Green Seal's environmental standard for commercial cleaning services

Criteria	Criterion
Reducing solid waste: recycling of materials	Segregate and recycle all waste items from cleaning operations, including paper, glass, plastics, cardboard, other packaging materials, empty chemical containers, and worn equipment that are acceptable for recycling in the community.
Waste collection scheduling	Remove waste and replace liners only when they are soiled from wet waste, becomeare broken, or as required; remove and dispose of waste before weekends and holidays.

# **Questions to stakeholders**

- Current record keeping practice for waste collection and disposal
- Practices in place to improve the solid waste collection and sorting

# 3.4.5 Analysis of implications for the revision of EU GPP criteria for cleaning services

The EU GPP criteria for cleaning services covers some elements of the proposed criteria area. The similarity is primarily related to the requirement on staff training. The topic coverage between both documents is similar and they both cover cleaning products, methods, equipment and machines used; waste management and aspects of health, safety and the environment.

The following aspects covered by this criteria area are new to the EU GPP criteria:

 Specific requirement on solid waste collection and sorting and waste water discharge.

The key implications proposed for the EU Ecolabel criteria for cleaning services that result in a revision of the EU GPP criteria for cleaning services are:

- The subject matter and associated requirements for staff training and environmental measures and practices are likely to remain unchanged.
- New subject matter and requirements on solid waste and waste water treatment might be added to the EU GPP, giving it a stronger focus on appropriate waste management.

# 3.5 Social

# 3.5.1 Criterion 17: Wage policy

The cleaning service provider shall meet national minimum wage regulations. If the cleaning service provider operates in multiple countries, all their operations shall comply with corresponding minimum wage regulations for the countries within they operate.

# Assessment and verification

The applicant shall annually demonstrate compliance with this criterion, including independent verification or documentary evidence (such as payslips).

#### **Rationale**

This criterion aims to raise awareness on the minimum wage issue and to provide an incentive to tackle this problem.

Stakeholders from the cleaning services sector have raised that the issue of low wages is a significant issue in the cleaning service sector. The national minimum wage is now implemented in three-quarters of EU member states. The remaining countries have minimum pay rates agreed through collective bargaining. For the cleaning service sector, it is common to have a sector specific minimum wage and this is usually higher than the national minimum wage (EFCI, 2014). However, due to competition and contractual costs minimum wages are not always respected which can lead to unfair competition in the market place.

The country differences on minimum wage regulations are a significant challenge to verify this criterion.

# **Question to stakeholders**

- Country differences on minimum wage regulations
- Assessment and verification for minimum wage

#### 3.5.2 Criterion 18: Labour standard

The cleaning service provider shall ensure that the fundamental principles and rights at work - as described in the International Labour Organisation's (ILO) Core Labour Standards, the UN Global Compact and the OECD Guidelines for Multi-National Enterprises - shall be observed by all cleaning service providers.

# Assessment and verification

The applicant shall demonstrate annually compliance, using independent verification or documentary evidence and this will be checked as part of the on-site inspection. For the purpose of verification, the following ILO Core Labour Standards shall be referred to:

- 029 Forced Labour
- 087 Freedom of Association and Protection of the Right to Organise
- 098 Right to Organise and Collective Bargaining
- 100 Equal remuneration
- 105 Abolition of Forced Labour
- 111 Discrimination (Employment and Occupation)
- 138 Minimum Age Convention
- 182 Elimination of the Worst Forms of Child Labour

# Rationale

Stakeholders from the cleaning services sector have raised significant concerns about labour and employment issues in the cleaning sector. The cost-driven and low-skilled nature of the industry means it is particularly prone to labour abuse issues.

Although the EU Ecolabel has traditionally been focused on addressing environmental impacts, new or revised EU Ecolabels are starting to incorporate criteria to address social issues. This is particularly relevant for cleaning services as it is a labour-intensive industry.

Criteria on social performance have been used in ecolabels (e.g. EU Ecolabel for textiles and manufacture and EU Ecolabel for tourism accommodation and camp sites). This criterion was developed based on the International Labour Organisation (ILO) standard, which is the most recognised international forum for raising issues on labour standards.

# **Question to stakeholders**

- Feasibility of the criterion
- Comprehensiveness of labour issues tackled by the criterion

# 3.5.3 Analysis of implications for the revision of EU GPP criteria for cleaning services

Social criteria are new to the EU GPP criteria for cleaning products and cleaning services. New subject matter and associated criteria on wage policy and labour standards might be added to the EU GPP.



# 3.6 Summary of questions to stakeholders

<u>Table</u> 12 provides a summary of key questions for which the input from stakeholders is required.

Table 12 A summary of questions to stakeholders

Criterion	Questions to stakeholders		
CRITERIA AREA: Cleaning products, supplies and accessories and power equipment			
Criterion 1. Use of cleaning products with lower environmental impacts	-The feasibility of proposed thresholds - The accessibility of ecolabelled cleaning products		
Criterion 2. Use of cleaning supplies and accessories with lower environmental impact	<ul> <li>The feasibility of proposed thresholds</li> <li>The accessibility of ecolabelled cleaning supplies and accessories</li> <li>Other supplies and accessories to be considered</li> </ul>		
Criterion 3. Cleaning product concentration at purchase	<ul> <li>Feasibility of the proposed % of concentrated and highly concentrated cleaning products</li> <li>Feasibility of concentrated product storage and distribution arrangement to client sites</li> <li>Feasibility for setting thresholds in a more strict relation to the categorisation types for concentrated cleaning products</li> </ul>		
Criterion 4. Recycled content in disposable cleaning supplies	<ul> <li>Feasibility of this potential criterion</li> <li>Products which might be covered by this criterion (Products with short life times as bin bags, plastic gloves).</li> <li>Appropriate threshold of recycled content for the products in focus</li> </ul>		

Criterion	Questions to stakeholders			
Criterion 5. Purchase of more durable and reusable cleaning accessories and supplies	- The feasibility of replacing short life time products with ones with a longer lifetime. (for instance. cleaning accessories (e.g. short life cleaning cloths) and supplies (e.g. short life vinyl gloves, wipes)			
Criterion 6. Use of cleaning cloths,	- Feasibility to set a threshold (minimum percentage used) for this criterion. The unit to be uses in the report referring to the supplies or accessories used (weight or the % of the total purchases)			
mops and rags	- Insight on the current adoption of such products in delivering cleaning services (e.g. microfibers)			
	- Other resource efficient products that should considered by this criterion			
CRITERIA AREA: Cleaning operations/power equipment				
Criterion 7. Cleaning product dosage	- Feasibility of setting maximum chemical consumption threshold (e.g. for other labelling schemes: the chemical consumption in excess of 640 μl (microliter)/m² is not permitted)			
Citerion 7. Cicaming product dosag	- Dosing devices used for concentrated cleaning products?			
	- Dosage setting for different concentrated cleaning products used.			

Criterion	Questions to stakeholders		
	- Relevancy of this criterion (e.g. do cleaning service providers own washing machines and making use of domestic laundry machines)		
Criterion 8. Efficiency in activities	- The accessibility of ecolabelled laundry services. Discuss the value of 50% (feasibility of this threshold)		
related with cleaning services (laundry services)	- Feasibility of requirements on energy labelling compliance (i.e. 50% 'A' class for existing washing machines, 100% 'A'+++' class for new washing machines)		
	- Means to verify the energy class for the in- house washing machines currently owned by the cleaning services companies		
Criterion 9. Room temperature water in cleaning product dilution	- Feasibility of setting a criterion for use of cleaning products that can be diluted with 'room temperature' water		
	- Monitoring the use of water and more specifically on the hot water used in cleaning services		
Criterion 10. Energy efficiency for vacuum cleaners	- Feasibility and time lines to include other types of powered equipment used in cleaning services falling in the scope of this project		
Criterion 11. Staff uniforms	- The accessibility of ecolabelled staff uniforms		
CRITERIA AREA: Road transportation			
Criterion 12. Air emissions and fuel use associated with road transport	- Feasibility of the proposed criterion		

Criterion	Questions to stakeholders		
CRITERIA AREA: Operational management			
Criterion 13. Staff training	<ul> <li>Comprehensiveness of the criterion covering the key areas in place for cleaning staff training</li> <li>Feasibility of defining a "simple" product inventory</li> </ul>		
Criterion 14. Environmental management: measures and practices	- Feasibility for implementing an Environmental Management System		
	- Cooperation between the cleaning service provider and the facility management teams to develop waste water discharge plans.		
Criterion 15. Waste water discharge	<ul> <li>Development of a specific waste water discharge plan for individual cleaning sites</li> <li>Feasibility of a waste water plan for individual cleaning sites</li> </ul>		
Criterion 16. Solid waste collection and sorting	<ul> <li>Current record keeping practice for waste collection and disposal</li> <li>Practices in place to improve the solid waste collection and sorting</li> </ul>		
CRITERIA AREA: Social			
Criterion 17. Wage policy	- Country differences on minimum wage regulations		
	- Assessment and verification for minimum wage		
Criterion 18. Labour standard	<ul><li>Feasibility of the criterion</li><li>Comprehensiveness of labour issues tackled by the criterion</li></ul>		

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