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EU green public procurement criteria for public space maintenance

EU GPP criteria for public space maintenance

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1 INTRODUCTION

EU green public procurement (GPP) criteria are designed to make it easier for public authorities to purchase goods, services and works with reduced environmental impacts. The use of the criteria is **voluntary**. The criteria are formulated in such a way that they can, if deemed appropriate by the individual authority, be (partially or fully) integrated into the authority's tender documents with minimal editing. Before publishing a call for tender, public authorities are advised to check the available offer of the goods, services and works they plan to purchase on the market where they are operating. When a contracting authority intends to use the criteria suggested in this document, it must do so in a manner which ensures compliance with the requirements of EU public procurement legislation (see, for instance, Articles 42, 43, 67(2) or 68 of Directive 2014/24 and similar provisions in other EU public procurement legislation). Practical information on this can also be found in the 2016 handbook on buying green, available at http://ec.europa.eu/environment/gpp/buying_handbook_en.htm

This document lists the EU GPP criteria for public space maintenance. An accompanying technical report provides the full rationale for selecting these criteria and gives references for further information. The criteria are split into selection criteria, technical specifications, award criteria and contract performance clauses. The criteria are of two types:

- **Core criteria** — *which are designed to allow for easy application of GPP, focusing on the key area(s) of environmental performance of a product and aimed at keeping administrative costs for companies to a minimum.*
- **Comprehensive criteria** — *which take into account more aspects or higher levels of environmental performance, for use by authorities that want to go further in supporting environmental and innovation goals.*

The formulation 'same for core and comprehensive criteria' is inserted if the criteria are identical for both types.

1.1 Definition and Scope

The product group ‘public space maintenance’ includes the following public spaces:

- streets, roads, avenues and boulevards
- bike lanes
- pedestrian areas, including sidewalks, underways, stairways, plazas, etc.
- man-made gardens and parks
- fountains, lakes and ponds.

The product group ‘public space maintenance’ does not include:

- natural parks and forests
- ports, canals, coastal lines, etc.

The product group ‘public space maintenance’ does not include the following activities:

- replacement of pavement and urban furniture
- repair or replacement of irrigation systems, fountains, street signs, urban furniture and mechanical equipment (e.g., gates)
- maintenance of sewage
- painting and repainting activities.

The product group ‘public space maintenance’ includes the following categories as well as their relevant common procurement vocabulary (CPV) codes. The CPV codes establish a single classification system for public procurement aimed at standardising the references used by contracting authorities and entities to describe procurement contracts. The categories included in the product group ‘public space maintenance’ and their relevant CPV codes cover the following:

Category 1: ‘Purchase of outdoor cleaning products and cleaning services’:

- ‘Outdoor cleaning products include the following’:
 - o all-purpose cleaners
 - o substances materials for winter maintenance (snow and ice removal) CPV code 44113910-7
 - o spreading salt CPV code 34927100-2
 - o supplies /accessories/mechanical parts, e.g., brushes, rolls, etc.
- ‘Outdoor cleaning services’: The services are defined as below and as those covered by the following CPV codes:
 - o street-cleaning and sweeping services corresponding to CPV code 90610000:
 - mechanical & manual sweeping of sidewalk, bike lane, road (asphalt, roadbed) and roadside (shoulders, curbs, green areas)
 - o bin-cleaning services corresponding to CPV code 90918000:
 - litter removal from the ground
 - litter collection and sorting from bins
 - o mechanical & manual water jet cleaning corresponding to CPV code 42924730, pressurised water cleaning apparatus and 42924740-8high-pressure cleaning apparatus:
 - façade/surface cleaning
 - o graffiti removal services corresponding to CPV code 90690000:
 - graffiti removal
 - o snow-clearing services corresponding to CPV code 90620000 and ice-clearing services corresponding to 90630000:
 - snow and ice removal from sidewalks, bike lanes and roads
 - o cleaning of fountains, lakes and ponds
 - o clean-up after natural weather events (like storms or heavy rain/snow fall).

Category 2: ‘Purchase of gardening products and services’:

- ‘Gardening products include the following:

- soil improvers
 - ornamental plants
 - irrigation systems
 - herbicides and pesticides.
- 'Gardening services': The services are defined as below and as those covered by the following CPV codes:
- tree pruning corresponding to CPV code 77341000
 - hedge trimming corresponding to CPV code 77342000
 - planting and plant and trees replacement: corresponding to CPV code 77330000, Floral display services; 03121100, Live plants, bulbs, roots, cuttings and slips; 03440000, Forestry products; 03441000, Ornamental plants, grasses, mosses or lichens; 03451000, Plants; 03451100, Bedding Plants; 03451200, Flower bulbs; 03451300, Shrubs; 03452000, Trees; 77314100, Grassing services; 77315000, Seeding services
 - fertilisation
 - weed control and pesticides use: partially corresponding to CPV code 77312000, Weed-clearance services
 - lawn replacement
 - manual & automated irrigation.

Category 3 'Purchase of machinery products and services':

- 'Gardening products' as defined by the Non-Road Mobile Machinery (NRMM) Regulation (EU) 2016/1628, the Machinery Directive 2006/46/EC, and the Outdoor Noise Directive 2000/14/EC (Annex I, item No. 46). Machinery products include the following:
- lawn-mowers (including walk-behind or ride-on grass cutting machines)
 - scarifiers
 - chainsaws
 - brush cutters
 - grass trimmer/grass edge trimmer
 - hedge trimmers

- pruners and similar hand-operated machines
 - leaf collectors and leaf blowers
 - motor-hoes
 - pedestrian controlled powered tillers
 - shredders /chippers (following the definition applicable to gardening equipment detailed in Noise Directive 2000/14/EC)
 - self-propelled or compact sweepers
 - spreaders
 - self-propelled snow blower.
- 'Machinery services': The services are defined as services requiring the use of machinery (as defined by the GPP criteria) for the maintenance of public spaces. The maintenance activity covers the following:
- gardening services
 - outdoor cleaning services.

Category 4: 'Purchase of vehicles and service fleet':

- 'Vehicles' as defined as comprising the following:
 - heavy-duty vehicles, meaning vehicles of categories N2 and N3, as defined by Directive 2007/46
 - special vehicles and other special purpose vehicles as defined by Directive 2007/46
 - street cleaning vehicles (truck-mounted sweepers)
 - the scope of vehicles excludes compact sweepers and spreaders that are considered non-road mobile machinery.
- 'Fleet and vehicle services': where services entailing the deployment of vehicles are contracted out, criteria have been recommended for the service fleet employed in carrying out the service.

Category 5: ‘Common criteria for service categories’:

- These define criteria to ensure that service providers and their employees are competent and promoting best operational practices through the implementation of environmental management measures.

(See the technical report for details and further technical definitions)

1.2 General note on verification

For a small number of criteria, the proposed means for verifying is to provide test reports. For each criterion, the relevant test methods are indicated. It is up to the public authority to decide at which stage such test results should be provided. In general, it does not seem necessary to require all tenderers to provide test results from the outset. To reduce the burden on tenderers and public authorities, a self-declaration could be considered sufficient when submitting bids. Afterwards, there are different options for if and when these tests could be required:

a) At the tendering stage:

For *one-off supply contracts*, the bidder with the most economically advantageous tender could be required to provide this proof. If the proof is deemed to be sufficient, the contract can be awarded. If the proof is deemed insufficient or non-compliant then:

- i) where the means of verification concerns a technical specification, the proof would be requested from the next highest scoring bidder who would then be considered for contract award;
- ii) where the means of verification concerns an award criterion, the additional points awarded would be removed and the tender ranking would be recalculated with all the ensuing consequences applying.

A test report verifies that a sample product has been tested for certain requirements, not the items actually delivered under the contract. For framework contracts, the situation may be different. This scenario is covered further in the next point on contract execution and in the additional explanations below.

b) During contract execution:

Test results could be requested for one or several items delivered under the contract, either in general, or if there are doubts about false declarations. This is particularly important for framework contracts which do not stipulate an initial order.

It is recommended that contract performance clauses be explicitly set. These should stipulate that the contracting authority is entitled to carry out random verification tests at any time during the term of the contract. If the results of such tests show that the delivered products do not meet the criteria, the contracting authority is entitled to apply penalties and may terminate the contract. Some public authorities include conditions that if, following the tests, the product is meeting their requirements, the testing costs have to be borne by the public authority; but if the requirements are not met, the costs have to be borne by the supplier.

For *framework agreements*, the point at which proof has to be provided will depend on the specific set-up of the contract:

- i) For framework agreements with a single operator where the individual items to be delivered are identified when awarding the framework agreement, and where it is just a question of how many units will be needed, the same considerations apply as for the one-off supply contracts described above;
- ii) For framework agreements that pre-select several potential suppliers with ensuing competitions among those pre-selected, tenderers will only need to show at this initial pre-selection stage their capability of delivering items meeting the minimum performance requirements of the framework agreement. For ensuing call-down contracts (or orders) that are awarded following the competition among the pre-selected suppliers, in principle the same considerations as under a) and b) above apply, if additional requirements have to be proven under the competition. If the competition is decided only on the basis of price, then a check at the contract execution stage should be considered.

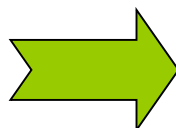
Please also note that, in accordance with Article 44 (2) of Directive 2014/24/EU, contracting authorities must accept other appropriate means of proof. This could include a technical dossier of the manufacturer where the economic operator concerned had no access to test reports or no possibility of obtaining them within the relevant time limits. This is on the condition that the lack of access was not attributable to the economic operator concerned and that the economic operator concerned proves that the works, supplies or services provided by it meet the requirements or criteria set out in the technical specifications, the award criteria or the contract performance conditions. If there is a reference to a certificate/test report drawn up by a specific conformity assessment body responsible for performing the tests, the contracting authorities must also accept certificates/test reports issued by other equivalent assessment bodies.

2 KEY ENVIRONMENTAL IMPACTS FROM OUTDOOR CLEANING PRODUCTS AND SERVICES

Based on the available scientific evidence, the main environmental impacts of outdoor cleaning products and services from the lifecycle perspective are summarised in the tables below (for further details, see the technical report). The same table also presents the EU GPP approach to mitigate or reduce those impacts.

1. Outdoor cleaning products and services

Key environmental impacts during product lifecycle	EU GPP approach
<ul style="list-style-type: none"> • Cleaning product formulation and raw material use, manufacturing and end-of-life of cleaning products and disposable cleaning accessories • Energy and water consumption in the use phase of cleaning products and power equipment • Wastewater discharge related to the use of cleaning products • Waste generation (solid and liquid) • Corrosion of physical structures and vehicles associated with the use of cleaning materials 	<ul style="list-style-type: none"> • Require key competences and the application of key environmental management measures and practices from the service provider • Require adequate and frequent training for the staff of the service provider • Require the use of cleaning products with reduced environmental impact • Encourage cleaning product concentration at purchase • Require the supply of consumable goods with reduced environmental impact



The order of impacts does not necessarily reflect their magnitude.

Detailed information about public space maintenance, including information about related legislation, standards and technical sources used as evidence, can be found in the technical report.

2.1 EU GPP CRITERIA FOR THE PURCHASE OF CLEANING PRODUCTS AND SERVICES (CATEGORY 1)

2.1.1 EU GPP CRITERIA FOR THE PURCHASE OF CLEANING PRODUCTS

2.1.1.1 Subject matter

SUBJECT MATTER
Purchase of outdoor cleaning products and cleaning services with reduced environmental impact.

2.1.1.2 Technical specifications and award criteria for the purchase of outdoor cleaning products

Core criteria	Comprehensive criteria		
TECHNICAL SPECIFICATION (TS)			
<p>TS1. Use of outdoor cleaning products with low environmental impacts</p> <p>1. All cleaning products used must not be classified and labelled as being acutely toxic, a specific target organ toxicant, a respiratory or skin sensitiser, carcinogenic, mutagenic or toxic for reproduction, or hazardous to the environment, or flammable in accordance with Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures (the 'CLP Regulation') as shown in Table 1 below:</p> <p>Table 1</p> <table> <tr> <td>Acute toxicity (Acute Tox.)</td><td>Acute Tox. 1, Acute Tox. 2 Acute Tox. 3</td></tr> </table>	Acute toxicity (Acute Tox.)	Acute Tox. 1, Acute Tox. 2 Acute Tox. 3	<p>TS1. Use of outdoor cleaning products with low environmental impacts</p> <p>1. All cleaning products per year, by volume at purchase, must comply with criterion 4 on excluded and restricted substances of the EU Ecolabel for hard surface cleaning products^b.</p> <p>2. Cleaning products must be provided with the recommended dosing systems (e.g. pump, graduated cylinder) when applicable. Information on the technical data sheet of the dosing system must specify the dose, and dispensing device.</p>
Acute toxicity (Acute Tox.)	Acute Tox. 1, Acute Tox. 2 Acute Tox. 3		

Specific target organ toxicity – repeated exposure (STOT RE)	STOT RE 1 or 2		Verification: 1. The tenderer must provide a declaration of compliance with this criterion supported by the material safety data sheets. Products that have been awarded with a relevant ISO Type I ecolabel covering the same requirements will be deemed to comply. 2. The tenderer must provide a declaration of compliance with this criterion supported by the technical data sheets.
Specific target organ toxicity – single exposure (STOT SE)	STOT SE 1, 2 or 3		
Carcinogenicity (Carc.)	Carc. 1A, Carc. 1B, Carc. 2		
Germ cell mutagenicity (Muta.)	Muta. 1A, Muta. 1B ,Muta. 2		
Reproductive toxicity (Repr.)	Repr. 1A, Repr. 1B ,Repr. 2		
Hazardous to the aquatic environment (Aquatic)	Aquatic Acute 1, Aquatic Chronic 1 or 2		
Respiratory sensitisation (Resp. Sens.)	Resp. Sens. 1, 1A or 1B		
Skin sensitisation (Skin Sens.)	Skin Sens. 1 , 1A or 1B		

<p>2. Cleaning products must be provided with the recommended dosing systems (e.g. pump, graduated cylinder) when applicable. Information on the technical data sheet of the dosing system must specify the dose and dispensing device.</p> <p>Verification:</p> <p>1. The tenderer must provide a declaration of compliance with this criterion supported by the material safety data sheets. Products that have been awarded with a relevant ISO Type I ecolabel covering the same requirements will be deemed to comply.</p> <p>2. The tenderer must provide a declaration of compliance with this criterion supported by the technical data sheets.</p>	
<p>Explanatory note: TS1. Use of cleaning products with low environmental impacts</p> <p>^{b)}<i>OJ L 180, 12.7.2017, p. 45-62; Commission Decision (EU) 2017/1217 of 23 June 2017 establishing the EU Ecolabel criteria for hard surface cleaning products. Available from:</i></p> <p>http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D1217&from=EN</p>	

TS2. De-icing and snow removal products *(same for core and comprehensive)*

1. De-icing and snow removal products must contain less than 1% chloride ion (Cl⁻)
2. De-icing and snow removal products must not be classified and labelled as being acutely toxic, corrosive to metals, a specific target organ toxicant, a respiratory or skin sensitiser, carcinogenic, mutagenic or toxic for reproduction, or hazardous to the environment, in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures ('CLP Regulation') as shown in Table 2.

Table 2

Acute toxicity	Acute Tox. 1, Acute Tox. 2, Acute Tox. 3
Specific target organ toxicity – repeated exposure	STOT RE 1 or 2
Specific target organ toxicity – single exposure	STOT SE 1, 2 or 3
Carcinogenicity	Carc. 1A, Carc. 1B, Carc. 2
Germ cell mutagenicity	Muta. 1A, Muta. 1B, Muta. 2
Reproductive toxicity	Repr. 1A, Repr. 1B, Repr. 2
Hazardous to the aquatic environment	Aquatic Acute 1, Aquatic Chronic 1 or 2, Aquatic Chronic 3
Respiratory sensitisation	Resp. Sens. 1, 1A or 1B
Skin sensitisation	Skin Sens. 1 , 1A or 1B

Verification:

The tenderer must provide data (material safety data sheet and amount) of the products to be supplied in execution of the contract. Products that have

been awarded with an ISO Type I ecolabel that covers these specific requirements are deemed to comply.

Explanatory note: TS2. De-icing and snow removal products

The contracting authority must ensure that the de-icing and snow removal products to be supplied are suited to the maintenance of public spaces (e.g., roads, pavements, drive-in and other municipal access areas). De-icing and snow removal products specifically designed for use in other applications, e.g., on runways at airports, are not covered by TS2.

AWARD CRITERIA (AC)

AC1. Compostable bin bags

Note: this criterion applies if biowaste is collected separately and processed by industrial composting plants that accept compostable bags.

Points will be awarded to bin bags used to collect biowaste that are compostable according to standards EN 14995:2007, EN 13432:2000, or equivalent.

Verification:

Tenderers must present proof of third party certification in accordance with EN 14995:2007, EN 13432:2000, or equivalent.

2.1.2 EU GPP CRITERIA FOR THE PURCHASE OF CLEANING SERVICES

2.1.2.1 Technical specifications and award criteria for the purchase of outdoor cleaning services

Important: Common criteria for service categories (Section 6) also apply to this category

Core criteria	Comprehensive criteria
TECHNICAL SPECIFICATION (TS)	
<p>TS3. Cleaning, de-icing and snow removal products used for the provision of cleaning services</p> <p>1. The cleaning products used to provide the cleaning services must comply with the requirements of the relevant technical specifications (TS1) at core level.</p> <p>2. The de-icing and snow removal products used to provide the cleaning services must comply with the requirements of the relevant technical specifications (TS2) at core level.</p> <p>Verification: See the verification of the relevant technical specifications.</p>	<p>TS3. Cleaning, de-icing and snow removal products used for the provision of cleaning services</p> <p>1. The cleaning products used to provide the cleaning services must comply with the requirements of the relevant technical specifications (TS1) at comprehensive level.</p> <p>2. The de-icing and snow removal products used to provide the cleaning services must comply with the requirements of the relevant technical specifications (TS2) at comprehensive level.</p> <p>Verification: See the verification of the relevant technical specifications.</p>

TS4. De-icing and snow removal operations *(same for core and comprehensive)*

The tenderers must have written procedures on de-icing and snow removal operations which must be implemented by combining any of the following techniques:

- Mechanical removal of snow (shovelling, brushing, ploughing and scraping combinations)
- Anti-icing
- Pre-wetting (based on an adjustment to the variable application rate)

Verification:

Tenderers must provide written procedures and a de-icing and snow removal plan (in accordance with the applicable elements of the common criteria for service categories TS1. Environmental management measures), including equipment and products to be employed in the execution of the contract.

TS5. Reduction of PM10 street dust *(same for core and comprehensive)*

- The tenderers must have written procedures on PM10 street dust reduction measures which must be implemented by means of the following best practices (or other relevant measures): Traction control practices (traction sanding using wet sieved and wear-resistant rock material);
- Implement dust binding practices (dust binding solutions, dispersion techniques);
- Street cleaning practices (mechanical & vacuum sweepers, street scrubbers, combinations).

Verification:

Tenderers must provide written procedures and a cleaning services plan for a PM10 street dust reduction operation (in accordance with the applicable elements of the common criteria for service categories TS1. Environmental management measures), including equipment and products to be employed in the execution of the contract.

2.1.2.2 Contract performance clauses

Core criteria	Comprehensive criteria
CONTRACT PERFORMANCE CLAUSES	
<p>CPC1. Weed control</p> <p>In addition to the requirements set up by local regulations concerning their application, chemical herbicides must not be applied:</p> <ul style="list-style-type: none"> – 4 days before or after the area is swept; and – in the event (or high probability of occurrence) of precipitation or dew, to prevent herbicides from being washed off the plants. <p>Also, herbicides must be used in line with the most recent valid version of the sustainable-weed-control-on-pavements method¹.</p> <p>Records of herbicides, application rates and schedules must be kept and made available to the contracting authority for verification purposes. The contracting authority may set rules for penalties for non-compliance.</p>	<p>CPC1. Weed control</p> <p>Weed control must be carried out by applying non-chemical treatment methods (except for organic vinegar), such as thermal, mechanical or biological treatments.</p> <p>Records of non-chemical treatment methods and application schedules must be kept and available to the contracting authority for verification purposes. The contracting authority may set rules for penalties for non-compliance.</p>
<p>Explanatory note: CPC1. Weed control</p> <p><i>Note on sustainable weed control on pavements</i></p> <p><i>The herbicides must be applied in line with the most recent valid version of the sustainable-weed-control-on-pavements method which is detailed</i></p>	

here: <http://www.wur.nl/en/Research-Results/Projects-and-programmes/SWEEP/Results.htm>

CPC2. Graffiti removal operation (*same for core and comprehensive*)

Note: This criterion is applicable only if the removal of graffiti is from surfaces other than building fronts and requires the use of a high-pressure water sprayer.

The contractor may use a high-pressure water sprayer (and cleaning solutions, if necessary) to remove graffiti from surfaces other than building fronts provided that a separation system is available enabling the dirty water to be recovered and subsequently treated. For example, this could be a water recycling system that catches the water used, filters it and re-uses it.

The contractor must document information on the volume and means of disposal of the wastewater and waste resulting from the graffiti removal operation as proof of compliance with the requirements above. Records of graffiti removal operations, including operational conditions and products used must be kept and made available to the contracting authority for verification purposes.

Explanatory note: CPC2. Graffiti removal operation

The contracting authority may select which graffiti removal operation is the most suitable for the surface to be cleaned. For the following types of surfaces, the following graffiti removal methods are generally recommended:

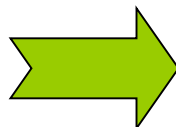
- a. Masonry substrates – use blasting system removal*
- b. Wood substrates – paint over*
- c. Non porous substrates – use chemical removers*
- d. Glass graffiti or etching – use chemical removers*
- e. Street signs – apply sensitive surface chemical graffiti removers (however, the effectiveness depends on the graffiti).*

3 KEY ENVIRONMENTAL IMPACTS FROM GARDENING PRODUCTS AND SERVICES

Based on the available scientific evidence, the main environmental impacts of gardening products and services from the lifecycle perspective are summarised in the tables below (for further details, see the technical report). The same table also presents the EU GPP approach to mitigate or reduce those impacts.

1. Gardening products and services

Key environmental impacts during product lifecycle	EU GPP approach
<ul style="list-style-type: none"> • Soil and water pollution, eutrophication, bioaccumulation and biomagnification of hazardous substances with negative and even toxic effects on the environment due to the inappropriate use of plant protection products • Overuse of non-renewable resources such as peat in soil improvers • High potable water consumption • High organic waste generation • High packaging waste generation 	<ul style="list-style-type: none"> • Use compost from separately collected waste as a soil improver and fertiliser with high quality controls • Avoid the use of peat as a soil improver • Restrict the application of plant protection products and apply alternative pest control techniques^a • Require use (whenever possible) of non-potable water, and install efficient irrigation systems and apply • Apply different measures to reduce water demand such as mulching, plant arrangements according to their hydric needs or selection of adapted/native ornamental plants • Procure when available preferably organically produced and native ornamental plants • Apply preventive measure to control peat and manage invasive alien species. • Ensure selective waste collection and organic waste treatment for



composting and mulching

- Procure products delivered in compostable, biodegradable or reusable, packaging
- Train staff appropriately

The order of impacts does not necessarily reflect their magnitude.

^aAlternative techniques as defined in the background technical report cover a variety of non-chemical based products and/or methods that are used for pest control and are less environmentally impacting than chemical based options. These could be organic based weed killers or mechanical (brushing, sweeping, mowing, hand weeding) or thermal (flaming, hot water) weed control methods.

Detailed information about public space maintenance, including information about related legislation, standards and technical sources used as evidence, can be found in the technical report.

3.1 EU GPP CRITERIA FOR THE PURCHASE OF GARDENING PRODUCTS AND SERVICES (CATEGORY 2)

3.1.1 EU GPP CRITERIA FOR THE PURCHASE OF GARDENING PRODUCTS

3.1.1.1 Subject matter

SUBJECT MATTER
Purchase of gardening products and services with reduced resource utilisation and minimal environmental impact.

3.1.1.2 Technical specifications and award criteria for the purchase of gardening products

Core criteria	Comprehensive criteria
TECHNICAL SPECIFICATION (TS)	
<p>TS1. Ornamental plants</p> <p><i>Note: In order to reduce water and fertilizer consumption, purchased ornamental plants should be plant species suitable for the local growing conditions (e.g., soil acidity, average rainfall, range of temperature over the year, etc). A list of plant species defined as suitable for the local growing conditions must be provided by the local authority.</i></p> <p>The purchased ornamental plants must be:</p> <ol style="list-style-type: none"> 1. X%^a organic: grown according to the requirements laid down in Regulation (EC) No 834/2007, or equivalent; and/or 2. Y%^a integrated pest management (IPM): grown according to IPM 	<p>TS1. Ornamental plants</p> <p><i>Note: In order to reduce water and fertilizer consumption, purchased ornamental plants should be plant species suitable for the local growing conditions (e.g., soil acidity, average rainfall, range of temperature over the year, etc). A list of plant species defined as suitable for the local growing conditions must be provided by the local authority.</i></p> <p>The purchased ornamental plants must be:</p> <ol style="list-style-type: none"> 1. Z%^a organic: grown according to the requirements laid down in Regulation (EC) No 834/2007, or equivalent; and/or 2. W%^a integrated pest management (IPM): grown according to

<p>principles as defined by the UN Food and Agricultural Organisation (FAO) IPM programme or EU Directive 2009/128/EC.</p> <p>Verification:</p> <p>The tenderer must provide information (name and amount) of the ornamental plants to be supplied in the execution of the contract, indicating specifically the products that comply with the requirement for IPM or organic production.</p> <p>Documented transaction records that allow for the verification of compliance of individual plants or batches of plants as well as traceability back to the point of certification must be accepted. This includes valid certification for organic or IPM production^b.</p>	<p>IPM principles as defined by the UN Food and Agricultural Organisation (FAO) IPM programme or EU Directive 2009/128/EC.</p> <p>Verification:</p> <p>The tenderer must provide information (name and amount) of the ornamental plants to be supplied in the execution of the contract, indicating specifically the products that comply with the requirement for IPM or organic production.</p> <p>Documented transaction records that allow for the verification of compliance of individual plants or batches of plants as well as traceability back to the point of certification must be accepted. This includes valid certification for organic or IPM production^b.</p>
<p>Explanatory note: TS1. Ornamental plants</p> <p><i>The contracting authority will have to specify how the percentage of purchase will be calculated, either in number or value. It could also require that for specific plants all of them should be organic to facilitate verification. If there are no organic ornamental plants in the national/regional market, the contracting authority may set the percentage of organic as zero.</i></p> <p>^{a)} <i>X% and Y% / W% and Y% thresholds to be defined by the procurer</i></p> <p>^{b)} <i>At the time of writing, the MPS-GAP certification scheme, the GLOBALG.A.P. flowers and plants scheme have embedded within them principles of IPM as a requirement and may be considered to provide sufficient assurance for IPM production.</i></p>	

The MPS-GAP is a basic certification for good agricultural practice aimed at securing safe working conditions and improved safety for the environment. The MPS-GAP certificate is designed for companies supplying to retailers, and consists of a series of production requirements regarding traceability, sustainability, safety and hygiene. The certification scheme is benchmarked against GLOBALG.A.P. and therefore complies with the requirements for the floriculture sustainability initiative (FSI).

GLOBALG.A.P. is a worldwide voluntary standard for the certification of agricultural products around the globe – where G.A.P. stands for good agricultural practice.

The US National Organic Program (NOP) or equivalent legal obligations set by trade partners of the EU are recognized as equivalent to the EU Organic Programme (see Annex III of Commission Regulation (EC) No 1235/2008 which lays down detailed rules for the implementation of Council Regulation (EC) No 834/2007 as regards the arrangements for imports of organic products from third countries). Commission implementing Regulation (EU) 2019/39 of 10 January 2019 amends Commission Regulation (EC) No 1235/2008.

	<p>TS2. Plant containers and packaging</p> <p>Plants must be delivered in containers (or crates or boxes in the case of small plants) that are one of the following (in order of priority):</p> <ul style="list-style-type: none"> – reusable (the tenderer must have a take-back system in place) – recyclable (if there are municipal collection facilities in place for recycling) – compostable according to the EN 14995:2007 or EN 13432:2000 standard, if there are municipal composting facilities accepting such items. <p>Verification:</p> <p>If containers are reusable, tenderers must provide a description of the take-back system. Tenderers must also provide a copy of the signed</p>
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	<p>agreement with the plant nursery, if they are not the plant nursery.</p> <p>If the containers are recyclable, a declaration of compliance with this criterion must be supplied.</p> <p>If containers are compostable, tenderers must provide test reports showing that the composition of the materials fulfils the requirements according to the EN 14995:2007 standard, the EN 13432:2000 standard, or equivalent.</p>
<p>TS3. Invasive alien species (<i>same for core and comprehensive</i>)</p> <p><i>Note: Preference should be given to plant species native to the area. If alien species are planted, ascertain that they will not become invasive, and take into account local or national policies for the control of invasive alien species, and European policies on invasive alien species (EU Regulation 1143/2014).</i></p> <p>The ornamental plants purchased must be native. If alien species are planted, it must be ascertained that they will not become invasive.</p> <p>Verification:</p> <p>The tenderer must provide information about (name of) the ornamental plants to be supplied.</p>	
<p>Explanatory note: TS3. Invasive alien species</p> <p><i>Experts are to be consulted for guidance to determine whether the plant species are native species, or if they are alien, that they will not become invasive if there is limited information on the types of species. In addition, it must be ascertained that the plant species match the local site conditions (soils, hydrology, precipitation, drainage, sun distribution, etc). Local or national lists of invasive plant species, as well as the List of Invasive Alien Species of Union concern detailed in Regulation 1143/2014 must be referred to.</i></p>	

<p>TS4. Organic constituents of soil improvers and mulch</p> <p>The following materials are not allowed as organic constituents of a final product:</p> <ul style="list-style-type: none"> – Peat; – Materials totally or partially derived from the organic fraction of mixed municipal household waste separated through mechanical, physicochemical, biological and/or manual treatment; – Materials totally or partially derived from sludge derived from municipal sewage water treatment and from sludge derived from the paper industry; – Materials totally or partially derived from category 1 animal by-products according to Regulation (EC) No 1069/2009. <p>Verification:</p> <p>Tenderers must provide the detailed composition of the product, the origin of organic matter and a declaration of compliance with the above requirements.</p> <p>Products holding the EU Ecolabel for growing media, soil improvers and mulch in accordance with Commission Decision 2015/2099/EC¹ or another relevant type I ecolabel fulfilling the listed criteria, will be</p>	<p>TS4. Organic constituents of soil improvers and mulch</p> <p>The following materials are allowed as organic constituents of a final product:</p> <ul style="list-style-type: none"> – Materials derived from the recycling of bio-waste from separate collection, as defined in Article 3 of Directive 2008/98/EC of the European Parliament and of the Council; – Materials derived from categories 2 and 3 animal by-products as laid down in Article 32 of Regulation (EC) No 1069/2009 of the European Parliament and of the Council and technical standards which are laid down by implementing Regulation (EU) 142/2011; – Materials derived from fecal matter, straw and other natural non-hazardous agricultural or forestry material as defined in Article 2.1(f) of Directive 2008/98/EC; – Materials derived from any other biomass by-products, as defined in Article 5 of Directive 2008/98/EC, that are not mentioned above, subject to the provisions of 2) and 3) below; – Materials derived from recycling or recovery of any other biomass waste not mentioned above, subject to the provisions of 2) and 3) below. <p>2) The following materials are not allowed as organic constituents of a final product:</p>
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<p>deemed to comply. Other appropriate means of proof, such as a technical dossier of the manufacturer or a test report of an independent body, will also be accepted.</p>	<ul style="list-style-type: none"> – Peat; – Materials totally or partially derived from the organic fraction of mixed municipal household waste separated through mechanical, physicochemical, biological and/or manual treatment; – Materials totally or partially derived from sludge derived from municipal sewage water treatment and from sludge derived from the paper industry; – Materials totally or partially derived from category 1 animal by-products according to Regulation (EC) No 1069/2009; – Materials totally or partially derived from sludge other than those allowed in 3) below. <p>3) Materials derived from the recycling or recovery of sludge are only allowed if the sludge complies with the following requirements:</p> <p>a) The sludge is identified as one of the following types of waste according to the European List of Wastes, as defined by Commission Decision 2000/532/EC:</p> <ul style="list-style-type: none"> – 020305 sludge from on-site effluent treatment in the preparation and processing of fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco; conserve production; yeast and yeast extract production, molasses preparation and fermentation. – 020403 sludge from on-site effluent treatment in sugar processing. – 020502 sludge from on-site effluent treatment in the dairy products
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	<p>industry.</p> <ul style="list-style-type: none"> – 020603 sludge from on-site effluent treatment in the baking and confectionery industry. – 020705 sludge from on-site effluent treatment in the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa). <p>b) The sludge is single-source separated, meaning that there has been no mixing with effluents or sludge outside a specific production process.</p> <p>Verification:</p> <p>Tenderers must provide the detailed composition of the product, the origin of organic matter and a declaration of compliance with the requirements above.</p> <p>Products holding the EU Ecolabel for growing media, soil improvers and mulch in accordance with Commission Decision 2015/2099/EC or another relevant type I ecolabel fulfilling the listed criteria will be deemed to comply. Other appropriate means of proof, such as a technical dossier of the manufacturer or a test report of an independent body, will also be accepted.</p>
<p>Explanatory note: TS4. Organic constituents of soil improvers and mulch</p> <p>¹⁾ <i>Commission Decision 2015/2099/EC is expected to be revised in the future. Once revised, the new version will be published and contracting authorities are expected to refer to it in the context of this criterion.</i></p> <p><i>The technical specification on organic constituents of soil improvers is aligned with the terms used by the Waste Framework Directive. These terms</i></p>	

define the legal status of materials, i.e. waste, by-products, agricultural material, etc. which entails legal consequences for their treatment and disposal. Some definitions and examples are listed below to help apply these terms:

- *‘Materials derived’ means that the constituents need to be the result of stabilisation and conditioning treatments of the waste, animal by-product, etc. Those treatments may be anaerobic digestion, composting, pyrolysis, or combinations of different treatments.*
- *‘Recycling of bio-waste from separate collection, as defined in Article 3 of Directive 2008/98/EC of the European Parliament and of the Council’ means composting or anaerobic digestion of the biodegradable garden and park waste, food and kitchen waste from households, restaurants, caterers and retail premises, separately collected.*
- *‘Category 2 and 3 animal by-products as laid down in Article 32 of Regulation (EC) No 1069/2009 of the European Parliament and of the Council and technical standards which are laid down by implementing Regulation (EU) 142/2011’ means bodies or parts of animals, products of animal origin, etc., not intended for human consumption, that are allowed to be treated by means of composting and anaerobic digestion;*
- *‘Fecal matter, straw and other natural non-hazardous agricultural or forestry material as defined in Article 2.1(f) of Directive 2008/98/EC’ means the residues resulting from agricultural and forestry activities that do not have the legal status of waste or by-product. They do not pose any environmental or health risk and are usually reused within the same agricultural or forestry activity;*
- *‘Organic fraction of mixed municipal household waste separated through mechanical, physicochemical, biological and/or manual treatment’ means bio-waste that has not been collected separately;*
- *‘Category 1 animal by-products according to Regulation (EC) No 1069/2009’ pose health and environmental risks related to diseases and contaminants and require specific treatments.*

TS5. Hazardous substances (heavy metals) in soil improvers

The content of the following elements in the final product or

TS5. Hazardous substances (heavy metals) in soil improvers

The content of the following elements in the final product or constituent

constituent must not exceed the values shown below, measured in terms of dry weight (DW) of the product.

Table 3

Element	mg/kg (dw)
Cadmium (Cd)	1.5
Chromium total (Cr)	100
Copper (Cu)	200
Mercury (Hg)	1
Nickel (Ni)	50
Lead (Pb)	120
Zinc (Zn)	600

Verification:

Tenderers must provide the relevant test reports (EN 13650 or equivalent; EN 16175 or equivalent for Hg) demonstrating that the above criterion is met.

Products holding the EU Ecolabel for growing media, soil improvers and mulch in accordance with Commission Decision 2015/2099/EC or another relevant type I ecolabel fulfilling the listed criteria, will be deemed to comply. Other appropriate means of proof, such as a technical dossier of the manufacturer or a test report of an independent body, will also be accepted.

must not exceed the values shown below, measured in terms of dry weight (DW) of the product.

Table 3

Element	mg/kg (dw)
Cadmium (Cd)	1
Chromium total (Cr)	100
Copper (Cu)	100
Mercury (Hg)	1
Nickel (Ni)	50
Lead (Pb)	100
Zinc (Zn)	300

Verification:

Tenderers must provide the relevant test reports (EN 13650 or equivalent; EN 16175 or equivalent for Hg) demonstrating that the above criterion is met.

Products holding the EU Ecolabel for growing media, soil improvers and mulch in accordance with Commission Decision 2015/2099/EC or another relevant type I ecolabel fulfilling the listed criteria, will be deemed to comply. Other appropriate means of proof, such as a technical dossier of the manufacturer or a test report of an independent body, will also be accepted.

	<p>TS6. Physical contaminants in soil improvers</p> <p>The content of glass, metal and plastic with mesh size of > 2 mm (the sum of each contribution) in the final product must not exceed 0.5%, measured in terms of dry weight.</p> <p>Verification:</p> <p>Tenderers must provide the relevant test reports (CEN/TS 16202 or equivalent) demonstrating that the above criterion is met.</p> <p>Products holding the EU Ecolabel for growing media, soil improvers and mulch in accordance with Commission Decision 2015/2099/EC or another relevant type I ecolabel fulfilling the listed criteria, will be deemed to comply. Other appropriate means of proof, such as a technical dossier of the manufacturer or a test report of an independent body, will also be accepted.</p>
	<p>TS7. Product performance of soil improvers</p> <p>a) Products must not adversely affect plant emergence and subsequent growth;</p> <p>b) The organic matter as loss on ignition of the final product must be at least 15% dry weight (% DW);</p> <p>c) The dry matter content of the final product must be at least 25% of the fresh weight (% FW).</p>

	<p>Verification:</p> <p>Tenderers must provide the relevant test reports (a: EN 16086-1 or equivalent; b: EN 13039 or equivalent; c: EN 13040 or equivalent) demonstrating that the above criterion is met.</p> <p>Products holding the EU Ecolabel for growing media, soil improvers and mulch in accordance with Commission Decision 2015/2099/EC or another relevant type I ecolabel fulfilling the listed criteria, will be deemed to comply. Other appropriate means of proof, such as a technical dossier of the manufacturer or a test report of an independent body, will also be accepted.</p>
	<p>TS8. Primary pathogens in soil improvers</p> <p>The content of primary pathogens in the final product must not exceed the following levels:</p> <p>a) Salmonella spp: absent in 25g fresh weight;</p> <p>b) E.coli: <1000 CFU/g fresh weight (CFU: colony-forming units).</p> <p>Verification:</p> <p>Tenderers must provide the relevant test reports (a: ISO 6579 or equivalent; b: CEN/TR 16193) demonstrating that the above criterion is met.</p> <p>Products holding the EU Ecolabel for growing media, soil improvers and mulch in accordance with Commission Decision 2015/2099/EC or another relevant type I ecolabel fulfilling the listed criteria, will be deemed to</p>

	comply. Other appropriate means of proof, such as a technical dossier of the manufacturer or a test report of an independent body, will also be accepted.
<p>TS9. Automatic irrigation <i>(same for core and comprehensive)</i></p> <p><i>Note: The contracting authority will provide the guidelines based on the water resources availability characteristics specific to the climate and location of the irrigation system.</i></p> <p>The automatic irrigation systems must allow for detailed parametrisation, enabling:</p> <ul style="list-style-type: none"> – different irrigation zones to be set up; – the volume of dispensed water to be adjusted by zones; – watering time periods to be programmed by zones; – the soil humidity level to be measured and the irrigation to be automatically blocked by zones when the soil humidity level is high enough (as defined by the contracting authority), for example after rain. <p>Verification:</p> <p>Tenderers must provide appropriate documentation demonstrating that these criteria are met.</p>	
AWARD CRITERIA	
<p>AC1. Additional ornamental plants <i>(same for core and comprehensive)</i></p> <p>Points will be awarded in proportion to each 10% improvement from the minimum technical specification of certified IPM or organic ornamental plant <i>(to be detailed to which extent more points will be attributed for the improvement on organic plants, which must be given more points than IPM).</i></p> <p>Verification:</p> <p>See TS1 above.</p>	

3.1.2 EU GPP CRITERIA FOR THE PURCHASE OF GARDENING SERVICES

3.1.2.1 Technical specifications and award criteria for the purchase of gardening services Important: Common criteria for service categories (Section 6) also apply to this category

Core criteria	Comprehensive criteria
TECHNICAL SPECIFICATION (TS)	
<p>TS10. Ornamental plants and soil improvers used for the provision of gardening services</p> <ul style="list-style-type: none"> The ornamental plants supplied when providing the gardening services must comply with the requirements of the relevant technical specifications (TS1 to TS3) at Core level. The soil improvers used for providing the gardening services must comply with the requirements of the relevant technical specifications (TS4 and TS5) at core level. <p>Verification: See the verification of the relevant technical specifications.</p>	<p>TS10. Ornamental plants and soil improvers used for the provision of gardening services</p> <ul style="list-style-type: none"> The ornamental plants supplied when providing the gardening services must comply with the requirements of the relevant technical specifications (TS1 to TS3) at Comprehensive level. The soil improvers used for providing the gardening services must comply with the requirements of the relevant technical specifications (TS4 to TS9) at comprehensive level. <p>Verification: See the verification of the relevant technical specifications.</p>
<p>TS11. Pest control and invasive alien species management</p> <p>The tenderer must present an annual phytosanitary treatment plan.</p>	<p>TS11. Pest control and invasive alien species management</p> <p>The tenderer must present an annual phytosanitary treatment plan, which</p>

<p><i>(this could be combined with an award criterion evaluating the quality of such a plan).</i></p> <p>This plan will take into account local or national policies for the control of invasive alien species and European policies on invasive alien species (EU Regulation 1143/2014). The plan must comply with the provisions of EU Directive 2009/128/EC on the sustainable use of pesticides and according to local policies on the use of chemicals.</p> <p>Verification: The tenderer must present the phytosanitary treatment plan.</p>	<p>must only include non-chemical treatment methods such as thermal, mechanical or biological treatments.</p> <p><i>(this could be combined with an award criterion evaluating the quality of such a plan).</i></p> <p>This plan will take into account local or national policies for the control of invasive alien species and European policies on invasive alien species (EU Regulation 1143/2014).</p> <p>Verification: The tenderer must present the phytosanitary treatment plan.</p>
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3.1.2.2 Contract performance clauses

Core criteria	Comprehensive criteria
CONTRACT PERFORMANCE CLAUSES	
<p>CPC1. Watering practices <i>(same for core and comprehensive)</i></p> <p><i>Note: The contracting authority will specify the use of locally recovered water sources (as a combination of rainwater, ground water and filtered grey water) based on the availability of infrastructure in order to allow the contractor to comply with this contract performance clause.</i></p> <p>Watering practices must:</p> <ul style="list-style-type: none"> – use rain, reclaimed, recycled or phreatic water when technically possible. – minimise the use of potable water. 	

- apply mulching to avoid evaporation in the areas specified by the contracting authority.
- use automatic irrigation systems as provided by the contracting authority and fit the volume of water dispensed to match plant needs. In this case the contractor will be in charge of the maintenance of the said irrigation system.
- deliver water directly to the root zone where possible.
- avoid watering the surface in the hottest parts of the day when evaporation is greatest, particularly in summer.

Records of watering practices must be kept and made available to the contracting authority for verification purposes. The contracting authority may set rules for penalties for non-compliance.

CPC2. Waste management *(same for core and comprehensive)*

Waste produced when carrying out gardening services must be collected separately and managed as follows (the contracting authority can/should limit the management options according to the local circumstances):

- All organic waste (dry leaves, pruning, grass) must be composted ‘in situ’, in the company facilities or by contracting out this practice to a waste treatment enterprise.
- Woody organic waste from branches, etc. must be shredded ‘in situ’ or in the company facilities and used as mulching in the agreed areas.
 - Packaging waste must be separated into the existing urban waste fractions and transported by licenced waste operators to a recycling centre approved by the local authorities to handle and process the various waste fractions (paper, plastic and other - available waste streams to be inserted). However, packaging waste of dangerous substances, such as plant protection products, must be disposed of safely in approved collection points or through an authorised waste manager for further treatment.

Records of the management of waste produced during gardening operations must be kept and made available to the contracting authority for verification purposes. The contracting authority may set rules for penalties for non-compliance.

CPC3. Pest control and invasive alien species management (*same for core and comprehensive*)

The contractor will carry out the service according to the phytosanitary treatment plan in accordance with Directive 2009/128/EC on the sustainable use of pesticides.

The presence of any plants or animals suspected of being invasive must be reported to the contracting authority, and adequate control measures must be defined in joint agreement.

Records of plant protection operations for pest control and invasive alien species management actions, including specific techniques and products used, must be kept by professional users following Regulation (EC) No 1107/2009 and made available to the contracting authority for verification purposes.

The contracting authority may set rules for penalties for non-compliance.

CPC4. Gardening practices and enhancement of biodiversity (*same for core and comprehensive*)

*Note: The contracting authority needs to provide the contractor with the practices to be implemented to enhance biodiversity**

The contractor must carry out gardening practices to enhance biodiversity that may involve a combination of the following:

- ensuring that no species exceeds X% of all the ornamental plants or trees planted
- developing spontaneous natural flora and fauna**
- implementing best landscaping and forestry activities measures+

Records of the plant species introduced, landscaping and the forestry activities implemented must be kept and made available to the contracting authority for verification purposes. The contracting authority may set rules for penalties for non-compliance.

Explanatory note: CPC4. Gardening practices and enhancement of biodiversity

The contracting authority will have to specify the maximum percentage of all the ornamental plants or trees planted that should not be exceeded by each species. Recommended values $X=15\%$.

**Experts are to be consulted to check whether the planted species are native species, or if they are alien, that they will not become invasive. Local or national lists of invasive plant species, as well as the List of invasive alien species of Union concern detailed in Regulation 1143/2014 must be referred to.*

***Where possible, the following practices should be implemented to encourage the development of spontaneous natural flora and fauna:*

- *employ nectar-rich native plants able to provide wildlife benefits*
- *use only organic means for pest control*
- *leave standing decaying wood on site where appropriate to provide a habitat for wildlife*
- *encourage the well-being of desired native species*
- *mark some of the most visible areas with informative posters that explain the purpose of these measures.*

⁺Landscaping and forestry activities should take into account the natural cycle of the plants and the wellbeing of the local fauna, by ensuring that:

- *natural grass areas are cut and maintained as 'meadow grassland'*
- *pruning is done outside of the breeding season*
- *habitats are not isolated so that there is continuity of the natural systems where possible.*

4 KEY ENVIRONMENTAL IMPACTS FROM MACHINERY PRODUCTS AND SERVICES

Based on the available scientific evidence, the main environmental impacts of machinery products and services from the lifecycle perspective are summarised in the tables below (for further details, see the technical report). The same table also presents the EU GPP approach to mitigate or reduce those impacts.

1. Machinery products and services

Key environmental impacts during product lifecycle	EU GPP approach
<ul style="list-style-type: none"> • Production of gaseous and particulate pollutant emissions • Eco-toxicity impact due to lubricant loss and the disposal of used oils and lubricants • Human health impacts associated with noise emissions • End-of-life disposal of the machinery • Disposal of heavy metal batteries 	<ul style="list-style-type: none"> • Require compliance with the most stringent regulations restricting engine exhaust emissions and air pollutant emissions • Use low noise, battery-powered machinery to eliminate the generation of exhaust air emissions and minimise noise emissions • Use biodegradable and not potentially bioaccumulative lubricants or regenerated oils for machines • Train staff appropriately to operate machinery in the most optimal manner and to reduce fuel and energy consumption • Require batteries with a very low heavy metal content

The order of impacts does not necessarily reflect their magnitude.

Detailed information about road transport, including information about related legislation, standards and technical sources used as evidence, can be found in the technical report.

4.1 EU GPP CRITERIA FOR MACHINERY PRODUCTS AND SERVICES (CATEGORY 3)

4.1.1 EU GPP CRITERIA FOR MACHINERY PRODUCTS

4.1.1.1 Subject matter

SUBJECT MATTER
Purchase of machinery products and services with low environmental impact.

4.1.1.2 Technical specifications and award criteria for the purchase of machinery products

Core criteria	Comprehensive criteria
TECHNICAL SPECIFICATION	
<p>TS1. Engine exhaust emissions</p> <p>The engine exhaust emissions of the mobile machinery must comply with at least one of the following:</p> <ul style="list-style-type: none"> i. Euro 6 - Regulation 715/2007 ii. Euro VI - Regulation 595/2009 iii. Stage V - REG (EU) 2016/1628 <p>The tender should document cases where the engine of the mobile machinery is not certified as meeting Stage V or higher but technical after-treatment* has achieved the same standard.</p>	<p>TS1. Engine exhaust emissions</p> <p>The machinery must operate with zero exhaust emissions.</p> <p>Verification: The tenderer must provide a copy of the type-approval certificate of the power unit of the machinery.</p>

<p>Verification: The tenderer must provide an engine test report or type approval certificate demonstrating that the engine emission performance limits are in conformity with the criterion. The test report must be from an independent body that meets the requirements of EN-ISO/IEC 17025. The type approval certificate must indicate the type approval number of the engine.</p>	
<p>TS2. Distribution performance</p> <p>The spreader model must comply with the requirements on distribution performance set by EN 15597-2, which comprises the following parameters:</p> <ul style="list-style-type: none"> i. dosage ii. spreader start iii. lateral distribution <p>Verification:</p> <p>The tenderer must present the test report according to standard EN 15597-2, showing that the results of the testing on:</p> <ul style="list-style-type: none"> i. dosage ii. spreader start iii. lateral distribution (dynamic test) <p>are that the ‘spreader is qualified’.</p> <p>The test must be carried out by an independent laboratory.</p>	

TS3. Battery rechargeability and quality *(same formulation for core and comprehensive)*

The battery must meet the performance requirements specified below:

1. EN 61951-2 – nickel-metal hydride batteries
2. EN 61960 – lithium ion batteries.

Verification:

Tenderers must provide a test report verifying battery quality and performance according to EN 61951-2 for nickel-metal hydride batteries or to EN 61960 for lithium ion batteries. Test reports verifying battery quality and performance according to equivalent standards will be deemed to comply. The test report must be from an independent testing laboratory that fulfils the requirements for the competence of testing and for calibration laboratories according to EN ISO/IEC 17025.

TS4. Machinery lubricant *(same formulation for core and comprehensive)*

Note: This criterion is applicable only if the relevant lubricants are included at the time of purchase.

1. Hydraulic fluids, gear oils, chainsaw oils, two-stroke oils and greases used in public space maintenance (PSM) machinery must not have a health or environmental hazard statement at the time of application (Lowest classification limit in Regulation (EC) No. 1272/2008). The cumulative mass percentage of substances present in the hydraulic fluids and greases that are both non-biodegradable and bioaccumulative must not be more than 0.1% (w/w).

Verification:

The tenderer must provide the technical sheets of the relevant lubricant to be supplied. Products that comply with the EU Ecolabel or equivalent type 1 ecolabel fulfilling the above requirement will be deemed to comply.

2. For four-stroke lubricants, unless the manufacturer of the machinery recommends another type of lubricant, the lubricant of the machinery must be low viscosity engine lubricant oils (LVL) or re-refined lubricant oils, with a minimum of 25% re-refined base oils. LVL oils are those corresponding to SAE grade number 0W30 or 5W30 or equivalent.

Verification:

The tenderer must provide a declaration of compliance with this criterion supported by the material safety data sheets for all products supplied in the execution of the contract.

TS5. Operation and maintenance instructions *(same formulation for core and comprehensive)*

The machinery must be supplied with its technical specifications and user information relevant for operating the machinery with reduced fuel and energy consumption and for maintaining, and extending its lifespan.

Verification:

The tenderer must provide user instructions containing information about operating and maintaining the machinery.

AWARD CRITERIA

AC1. Zero exhaust emissions

Points will be awarded to machines that can demonstrate zero exhaust emissions capability, meaning the machinery can run without any direct engine exhaust emission.

Verification: The tenderer must provide a copy of the type-approval certificate of the power unit of the machinery.

Explanatory note: AC1. Zero exhaust emissions

**Engines complying with an emission stage prior to Stage V, in accordance with the exemptions and transitional provisions set out in Article 10(7) of Directive 97/68/EC, Articles 34(7), 34(8) or 58(5) to 58(11) of Regulation (EU) 2016/1628, and Articles 11(4) and 14 of Commission Delegated Regulation (EU) 2015/96, or Article 13(3) to 13(6) of Commission Delegated Regulation (EU) 2018/985, are allowed to be installed, if they are retrofitted with a DPF system certified according to one of the following certificates and if they have a gravimetric separation efficiency of at least 90%:*

- *Anlage XXVII Nummer 3 StVZO*
- *UNECE Regulation R 132, reduction stage 01, Class I or II*
- *FAD e.V. Siegel (status February 2015 or newer)*
- *VERT filter list (status September 2016 or newer)*
- *BAFU filter list.*

AC2. Battery heavy metal content *(same for core and comprehensive)*

Points will be awarded for the provision of battery-powered machinery employing rechargeable batteries with lower heavy metal concentration than those specified below:

1. Mercury < 0.1 ppm
2. Cadmium < 1.0 ppm
3. Lead < 5 ppm

Verification:

See TS3.

4.1.2 EU GPP CRITERIA FOR THE PURCHASE OF MACHINERY SERVICES

4.1.2.1 Subject matter

SUBJECT MATTER
Purchase of public space maintenance services with low environmental impact using machinery defined by Regulation (EU) 2016/1628.

4.1.2.2 Technical specifications and award criteria (These criteria apply only if the operators own or lease the service fleet)

Important: Common criteria for service categories (Section 6) also apply to this category

Core criteria	Comprehensive criteria
TECHNICAL SPECIFICATION	
<p>TS6. Machine engine exhaust emissions <i>Note: this criterion is not applicable to compact sweepers and spreaders.</i></p> <p>Mobile machinery used in carrying out the service must be in compliance with the following:</p> <ol style="list-style-type: none"> 1. Meet at least Stage V 2. Must be zero exhaust emission <ul style="list-style-type: none"> – 2019: 25% of machinery must be zero exhaust emission – 2020: 35% of machinery must be zero exhaust emission – 2021: 45% of machinery must be zero exhaust emission – 2022: 55% of machinery must be zero exhaust emission 	<p>TS6. Machine engine exhaust emissions <i>Note: this criterion is not applicable to compact sweepers and spreaders.</i></p> <p>Mobile machinery used in carrying out the service must be in compliance with the following:</p> <ol style="list-style-type: none"> 1. Meet at least Stage V 2. Must be zero exhaust emission <ul style="list-style-type: none"> – 2019: 50% of machinery must be zero exhaust emission – 2020: 60% of machinery must be zero exhaust emission – 2021: 70% of machinery must be zero exhaust emission – 2022: 80% of machinery must be zero exhaust emission

<p>Verification:</p> <p>Same as TS1 together with the list of the machinery intended to be used for providing the PSM service, their certificates of conformity, and copies of the type-approval certificate of the power unit of the machinery.</p>	<p>Verification:</p> <p>Same as TS1 together with the list of the machinery intended to be used for providing the PSM service, their certificates of conformity, and copies of the type-approval certificate of the power unit of the machinery.</p>
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<p>TS7. Air pollutant emissions performance <i>Note: this criterion is only applicable to compact sweepers and spreaders.</i></p> <p>The air pollutant emissions performance of the engine of the fleet of sweepers and spreaders used in carrying out the service must be in compliance with the following:</p> <ol style="list-style-type: none"> 1. Must be at least Stage IV 2. Must be Stage V or Euro 6/VI <ul style="list-style-type: none"> – 2019: 30% of sweepers and spreaders must meet Stage V or Euro 6/VI – 2020: 40% of sweepers and spreaders must meet Stage V or Euro 6/VI – 2021: 50% of sweepers and spreaders must meet Stage V or Euro 6/VI – 2021: 60% of sweepers and spreaders must meet Stage V or Euro 6/VI 3. Must be zero exhaust emission <ul style="list-style-type: none"> – 2019: 20% of sweepers and spreaders must be zero exhaust emission 	<p>TS7. Air pollutant emissions performance <i>Note: this criterion is only applicable to compact sweepers and spreaders.</i></p> <p>The air pollutant emissions performance of the engine of the fleet of the sweepers and spreaders used in carrying out the service must be in compliance with the following:</p> <ol style="list-style-type: none"> 1. Must be at least Stage IV 2. Must be Stage V or Euro 6/VI <ul style="list-style-type: none"> – 2019: 50% of sweepers and spreaders must meet Stage V or Euro 6/VI – 2020: 60% of sweepers and spreaders must meet Stage V or Euro 6/VI – 2021: 70% of sweepers and spreaders must meet Stage V or Euro 6/VI – 2022: 80% of sweepers and spreaders must meet Stage V or Euro 6/VI 3. Must be zero exhaust emission <ul style="list-style-type: none"> – 2019: 50% of sweepers and spreaders must be zero exhaust emission
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<ul style="list-style-type: none"> – 2020: 25% of sweepers and spreaders must be zero exhaust emission – 2021: 30% of sweepers and spreaders must be zero exhaust emission – 2022: 35% of sweepers and spreaders must be zero exhaust emission <p>The tier applicable will correspond to the year that the call for tender is launched.</p> <p>The tender should document cases where sweepers and spreaders are not certified as meeting Stage IV or higher, but technical after-treatment* has achieved the same standard.</p> <p>Verification:</p> <p>Same as TS1 together with the list of the machinery intended to be used for providing the PSM service, their certificates of conformity, and copies of the type-approval certificate of the power unit of the machinery. For those vehicles having achieved the standard mentioned above following a technical upgrade, the measures must be documented and included in the tender, and this must be verified by an independent third party that meets the requirements of EN-ISO/IEC 17025.</p>	<ul style="list-style-type: none"> – 2020: 60% of sweepers and spreaders must be zero exhaust emission – 2021: 70% of sweepers and spreaders must be zero exhaust emission – 2022: 80% of sweepers and spreaders must be zero exhaust emission <p>The tender should document cases where sweepers and spreaders are not certified as meeting Stage IV or higher, but technical after-treatment* has achieved the same standard.</p> <p>Verification:</p> <p>Same as TS1 together with the list of the machinery intended to be used for providing the PSM service, their certificates of conformity, and copies of the type-approval certificate of the power unit of the machinery.</p>
<p>Explanatory note: TS7. Air pollutant emissions performance</p> <p><i>*Engines complying with an emission stage prior to Stage V, in accordance with the exemptions and transitional provisions set out in Article 10(7) of Directive 97/68/EC, Articles 34(7), 34(8) or 58(5) to 58(11) of Regulation (EU) 2016/1628, and Articles 11(4) and 14 of Commission Delegated Regulation (EU) 2015/96, or Article 13(3) to 13(6) of Commission Delegated Regulation (EU) 2018/985, are allowed to be installed, if they are</i></p>	

retrofitted with a DPF system certified according to one of the following certificates and if they have a gravimetric separation efficiency of at least 90%:

- *Anlage XXVII Nummer 3 StVZO*
- *UNECE Regulation R 132, reduction stage 01, Class I or II*
- *FAD e.V. Siegel (status February 2015 or newer)*
- *VERT filter list (status September 2016 or newer)*
- *BAFU filter list.*

TS8. Machinery battery rechargeability and quality

All the machines must be equipped with battery systems compliant with the technical specification TS3.

Verification:

Same as TS3 together with the list and technical data sheet of the machinery fleet to be employed for providing the service.

AWARD CRITERIA

AC3. Machine engine exhaust emissions *(same for core and comprehensive)*

Points will be proportionately awarded to the tenderer with a proportion of machinery fleet exceeding the requirements of TS6.

Verification:

See above TS6.

<p>AC4. Improved air pollutant emissions performance <i>(same for core and comprehensive)</i></p> <p>Points will be awarded in proportion to each percentage improvement upon the minimum technical specification required in TS7</p> <p>Verification: See TS7 above</p>	
<p>AC5. Distribution performance of spreaders</p> <p>Tenders offering a service fleet will be awarded points in proportion to the share of spreaders that are qualified according to EN 15597-2.</p> <p>Verification: The tenderer must present the list of the vehicles of the service fleet and their test reports according to EN 15597-2 issued by an independent laboratory.</p>	
	<p>AC6. Battery heavy metal content</p> <p>Tenders offering a service fleet must be awarded points in proportion to the share of machines that are equipped with battery systems compliant with AC2 on machine battery heavy metal concentration.</p> <p>Verification: Same as AC2 together with the list and technical data sheet of the machinery fleet to be employed for providing the service.</p>

4.1.2.3 Contract performance clauses
(this only applies if the operators own or lease the service fleet)

Core criteria	Comprehensive criteria
CONTRACT PERFORMANCE CLAUSES	
<p>CPC1. Machine engine exhaust emissions <i>(same for core and comprehensive)</i></p> <p><i>Note: this criterion applies only if the replacement machinery satisfies operational needs as defined by the contracting authority and is agreed with the service provider.</i></p> <p>If the machinery employed for the service is to be replaced during the contract, the replacement must be machinery with zero exhaust emissions (when such products are available on the market).</p> <p>The yearly records on the machinery maintenance and replacement schedule must be made available to the contracting authority for verification purposes. The contracting authority may set rules for penalties for non-compliance.</p>	
<p>Explanatory note: CPC1. Machine engine exhaust emissions</p> <ul style="list-style-type: none"> <i>The replacement of machinery is recommended when the machinery is approaching the end of its useful life or due to irreparable damage</i> <i>Zero exhaust emissions machinery can run without any direct engine exhaust emissions.</i> 	
<p>CPC2. Machinery lubricant <i>(same for core and comprehensive)</i></p> <p>The contractor must ensure that the hydraulic fluids, gear oils, chainsaw oils, two-stroke oils and greases used in PSM machinery employed for the service comply with TS4 on machinery lubricants.</p> <p>The contractor will keep records, which must be made available to the contracting authority. The contracting authority may set rules for penalties for</p>	

non-compliance.

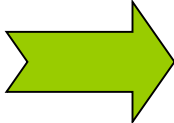
For four-stroke lubricants, unless the manufacturer of the machinery recommends another type of lubricant, the contractor must replace the lubricants used in PSM machinery employed for the service with lubricants that comply with TS4 on machinery lubricants for four-stroke engines.

The contractor will keep records, which must be made available to the contracting authority. The contracting authority may set rules for penalties for non-compliance.

5 KEY ENVIRONMENTAL IMPACTS FROM VEHICLES AND SERVICE FLEETS

Based on the available scientific evidence, the main environmental impacts of vehicles and service fleets from the lifecycle perspective are summarised in the tables below (for further details, see the technical report). The same table also presents the EU GPP approach to mitigate or reduce those impacts.

1. Vehicles and service fleet

Key environmental impacts during product lifecycle	EU GPP approach
<ul style="list-style-type: none"> Greenhouse gas (GHG) and air pollutant emissions produced by energy consumption during the use phase GHG and air pollutant emissions produced along the supply chain of the energy carriers Environmental impacts produced during the manufacture of batteries of electric vehicles Noise emissions produced by the vehicle and tyres during the use phase 	 <ul style="list-style-type: none"> Require criteria on type-approval CO₂ emissions for light commercial vehicles (LCVs), and specific technologies for heavy-duty vehicles and L-category vehicles Require criteria based on air pollutant emissions performance for LCVs, and specific technologies for heavy-duty vehicles and L-category vehicles Require criteria on rolling resistance of tyres Require criteria on energy efficiency for electric cars and LCVs Require criteria on battery warranties Require criteria on vehicle and tyres noise emissions Require key competences and the application of key environmental management measures and practices from service providers Require adequate and frequent training for the staff of service providers

- | |
|---|
| <ul style="list-style-type: none">• Require criteria on tyres and lubricants for maintenance activities |
|---|

The order of impacts does not necessarily reflect their magnitude.

Detailed information about public space maintenance, including information about related legislation, standards and technical sources used as evidence, can be found in the technical report.

5.1 EU GPP CRITERIA FOR THE PURCHASE VEHICLE FLEET AND SERVICES (CATEGORY 4)

5.1.1 EU GPP CRITERIA FOR VEHICLE FLEETS

5.1.1.1 Subject matter

SUBJECT MATTER
<p>Purchase of vehicles of categories N2 and N3, as defined by Directive 2007/46, special vehicles and other special purpose vehicles as defined by Directive 2007/46 (street cleaning vehicles, i.e. truck-mounted sweepers), with low environmental impact.</p> <p><i>Note: compact sweepers and spreaders that are considered non-road mobile machinery and therefore covered by the machinery criteria.</i></p>

5.1.1.2 Technical specifications and award criteria

Core criteria	Comprehensive criteria
TECHNICAL SPECIFICATION	
<p>TS1. Technological options to reduce GHG emissions</p> <p><i>Note: this criterion is applicable to heavy-duty vehicles and special purpose vehicles.</i></p> <p>The vehicle must be equipped with one of the following technologies demonstrating well-to-wheel (WTW) GHG emissions reduction:</p> <ul style="list-style-type: none"> improvement in aerodynamics: active flow control (only for trucks used in regional duty cycles) 	<p>TS1. Technological options to reduce GHG emissions</p> <p><i>Note: this criterion is applicable to heavy-duty vehicles and special purpose vehicles.</i></p> <p>The vehicle must be equipped with one of the following technologies demonstrating WTW GHG emissions reduction:</p> <ul style="list-style-type: none"> full electric vehicles hydrogen fuel cell electric vehicles

<ul style="list-style-type: none"> • improvement in aerodynamics: boat tails / extension panels (only for trucks used in regional duty cycles) • hybrid vehicles, both diesel and natural gas • full electric vehicles • hydrogen fuel cell electric vehicles • original equipment manufacturer (OEM) dual-fuel natural gas vehicle with a gas energy ratio over the hot part of the WHTC test-cycle of at least 50%. • high pressure direct injection natural gas vehicles • plug-in hybrid: vehicle equipped with a battery pack which can be charged from the grid and provides the energy for the electrical drive of the body and equipment • load-sensing-hydraulic system (for sweepers): the flow-capacity of the pump will be regulated through the load-sensing-pressure. • dedicated natural gas vehicles under the conditions set in the note below. <p><i>Note: The contracting authority may include dedicated natural gas vehicles if they have a supply of renewable methane meeting at least 15% of their demand.</i></p> <p>Verification: The tenderer must present the technical sheet of the vehicle where these technical or fuel technology specifications are stated.</p>	<ul style="list-style-type: none"> • OEM dual-fuel natural gas vehicle with a gas energy ratio over the hot part of the world harmonized transient cycle (WHTC) test-cycle of at least 50%. • high pressure direct injection natural gas vehicles • plug-in hybrid: vehicle equipped with a battery pack which can be charged from the grid and provides the energy for the electrical drive of the body and equipment • load-sensing-hydraulic system (for sweepers): the flow-capacity of the pump will be regulated through the load-sensing-pressure. • dedicated natural gas vehicles under the conditions set in the note below. <p><i>Note: The contracting authority may include dedicated natural gas vehicles if they have a supply of renewable methane meeting at least 15% of their demand.</i></p> <p>Verification: The tenderer must present the technical sheet of the vehicle where these technical or fuel technology specifications are stated.</p>
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TS2. Tyre pressure monitoring systems (TPMS) *(same for core and comprehensive)*

Note: this criterion is not applicable to special-purpose vehicles, i.e. truck-mounted sweepers.

LCVs and heavy-duty vehicles must be equipped with tyre pressure monitoring systems (TPMS) or with sensors that enable the monitoring at the operator site.

Verification:

The tenderer must provide the technical sheet of the vehicle where this information is stated.

TS3. Vehicle tyres – rolling resistance *(same for core and comprehensive)*

Note: this criterion is not applicable to special-purpose vehicles, i.e. truck-mounted sweepers.

The vehicles must be equipped with:

a) Tyres that comply with the highest fuel energy efficiency class for rolling resistance expressed in kg/tonne, as defined by Regulation (EC) No 1222/2009 of the European Parliament and of the Council of 25 November 2009 on the labelling of tyres with respect to fuel efficiency and other essential parameters. This requirement must not prevent the public authority from purchasing tyres with the highest wet grip class where justified by safety.

OR

b) Retreaded tyres.

Note: Regulation (EC) No 1222/2009 is currently under revision, and as part of this process, the European Commission has put forward proposal COM(2018) 296. This criterion will need to be updated according to the new legislation, once it is in force.

Verification:

The tenderer must provide the label of the tyre according to Regulation (EC) No 1222/2009 for tyres under case a, or the Notice of approval according to Annex 1 of UNECE Regulation 109 for retreaded tyres (case b).

TS4. Air pollutant emissions performance *(same for core and comprehensive)*

N₃ vehicles and N₂ vehicles with a reference mass¹⁾ exceeding 2 610 kg must meet Euro VI.

N₂ vehicles with a reference mass¹⁾ not exceeding 2 610 kg must comply with the TS2 Air pollutant emission performance of the EU GPP of Transport criteria for cars and LCVs (Category 1).

Vehicle-mounted sweepers must meet Euro VI or Euro 6, depending on the reference mass of the vehicle on which they are mounted.

Verification:

The tenderer must present the vehicle's certificate of conformity. For those vehicles having achieved the standard mentioned above following a technical upgrade, the measures must be documented and included in the tender, and this must be verified by an independent third party.

Explanatory note: TS4. Air pollutant emissions performance

¹⁾ 'Reference mass' means the mass of the vehicle in running order, as declared in the certificate of conformity, minus the uniform mass of the driver of 75 kg and increased by a uniform mass of 100 kg.

TS5. Water recirculation systems

	<p><i>If the contracting authority is requiring sweepers that use water for dust suppression.</i></p> <p>Sweepers must be equipped with a water recirculation system, meaning a system that recirculates part of the water that is used for dust suppression. The water is sprayed and then removed together with the dust by the sweeper. The machine filters the wastewater, which is then recirculated to the water tank.</p> <p>Verification:</p> <p>The tenderer must present the technical sheet where the water recirculation system is described.</p>
	<p>TS6. Tyre noise <i>(not to be used if, for safety reasons, tyres with the highest wet grip class, snow tyres or ice tyres are needed).</i></p> <p><i>Note: this criterion does not apply to special purpose vehicles.</i></p> <p>Heavy-duty vehicles (HDVs) must be equipped with:</p> <ul style="list-style-type: none"> a) tyres with external rolling noise emission levels 3dB below the maximum established in Regulation (EC) No 661/2009, Annex II, Part C. This is equivalent to the top category (of the three

	<p>available) of the EU tyre label external rolling noise class.</p> <p>OR</p> <p>b) retreaded tyres.</p> <p><i>Note: Regulation (EC) No 1222/2009 is currently under revision, and as part of this process, the European Commission has put forward proposal COM(2018) 296. This criterion will need to be updated according to the new legislation, once it is in force.</i></p> <p>Verification: The tenderer must provide the label of the tyre according to Regulation (EC) No 1222/2009 for tyres under case a) or the Notice of approval according to Annex 1 of UNECE Regulation 109 for retreaded tyres (case b).</p>
AWARD CRITERIA	
	<p>AC1. Air conditioning gases</p> <p>Points will be awarded to those vehicles equipped with an air conditioning system that uses a refrigerant whose global warming potential (GWP), as a factor of CO₂ and over a time horizon of 100 years, is below 150.</p> <p>Verification:</p> <p>The tenderer must provide the name, formula and GWP of the refrigerating gas used in the air conditioning system. If a mixture of gases is used (n number of gases), the GWP will be calculated as follows:</p> <p>$GWP = \Sigma(\text{Substance X1\%} \times GWP(X1)) + (\text{Substance X2\%} \times GWP(X2))$</p>

	<p>+ ... (Substance $X_n\% \times GWP(X_n)$) where % is the contribution by weight with a weight tolerance of +/- 1%. GWP of gases can be found in Annexes I and II of Regulation (EU) No 517/2014 (http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2014.150.01.0195.01.ENG)</p>
	<p>AC2. Vehicle tyres – retreaded tyres</p> <p>Points will be awarded to special purpose vehicles equipped with retreaded tyres.</p> <p>Verification: The tenderer must provide the Notice of approval according to Annex 1 of UNECE Regulation 109 for retreaded tyres.</p>
<p>AC3. Improved air pollutant emissions performance</p> <p>N₃ vehicles and N₂ vehicles with a reference mass¹⁾ exceeding 2 610 kg and special purpose vehicles: Points will be awarded to the following technologies:</p> <ul style="list-style-type: none"> • natural gas • plug-in hybrid electric vehicles (PHEV) • battery electric vehicles (BEV) and 	

<ul style="list-style-type: none"> hydrogen fuel cell electric vehicles (FCEV). <p><i>(to be detailed to which extent more points will be attributed to zero tailpipe capable vehicles, i.e. plug-in hybrid electric vehicles (PHEV), battery electric vehicles (BEV), and fuel cell electric vehicles (FCEV). Zero tailpipe emissions capable vehicles must be given more points than natural gas vehicles.).</i></p> <p>N₂ vehicles with a reference mass not exceeding¹⁾ 2 610 kg: the formula of the AC3 Improved air pollutant emissions performance and AC4 Zero tailpipe emission capability of the EU GPP of Transport criteria for cars and LCVs (Category 1).</p> <p>Verification:</p> <p>The tenderer must provide the vehicle's certificate of conformity. For those vehicles having achieved the standard mentioned above following a technical upgrade, the measures must be documented and included in the tender, and this must be verified by an independent third party.</p>	
<p>Explanatory note: AC3. Improved air pollutant emissions performance</p> <p>¹⁾ 'Reference mass' means the mass of the vehicle in running order, as declared in the certificate of conformity, minus the uniform mass of the driver of 75 kg and increased by a uniform mass of 100 kg.</p>	
<p>AC4. Water recirculation systems</p>	

<p><i>If the contracting authority is requiring sweepers that use water for dust suppression</i></p> <p>Points will be awarded to sweepers that are equipped with a water recirculation system meaning a system that recirculates part of the water that is used for dust suppression. The water is spread and then removed together with the dust by the sweeper. The machine filters the wastewater, which is then recirculated to the water tank.</p> <p>Verification:</p> <p>The tenderer must present the technical sheet where the water recirculation system is described.</p>	
	<p>AC5. Vehicle noise</p> <p><i>Note: this criterion does not apply to special purpose vehicles.</i></p> <p>Points will be awarded to the vehicles with noise emissions compliant with the Phase 3 limits of Regulation (EU) No 540/2014. The noise emissions will be tested according to Annex II of Regulation (EU) No 540/2014.</p> <p>Verification:</p>

	The tenderer must provide the vehicle's certificate of conformity.
	<p>AC6. Sweepers</p> <p>Points will be awarded to sweepers with a lower guaranteed sound power level, according to Directive 2000/14/EC.</p> <p>Verification:</p> <p>The tenderer must provide a copy of the CE marking together with the indication of the guaranteed sound power level of the sweeper according to Directive 2000/14/EC.</p>

5.1.2 EU GPP CRITERIA FOR THE PURCHASE OF FLEET SERVICE

5.1.2.1 Subject matter

SUBJECT MATTER
<p>Purchase of public space maintenance services with low environmental impact using vehicles of categories N2 and N3, as defined by Directive 2007/46, special vehicles and other special purpose vehicles as defined by Directive 2007/46 (street cleaning vehicles, i.e. truck-mounted sweepers), with low environmental impact.</p> <p><i>Note: compact sweepers and spreaders that are considered non-road mobile machinery and therefore covered by the machinery criteria.</i></p>

5.1.2.2 Technical specifications and award criteria (These criteria apply only if the operators own or lease the service fleet)

Important: Common criteria for service categories (Section 6) also apply to this category

Core criteria	Comprehensive criteria
TECHNICAL SPECIFICATION	
<p>TS1. GHG emissions</p> <p>For HDVs and special purpose vehicles:</p> <p>The fleet must be composed of the following shares of vehicles equipped with one of the eligible technologies set by the core TS1 Technological improvement options to reduce GHG emissions of vehicles:</p> <ul style="list-style-type: none"> • 2019: 20% • 2020: 28% • 2021: 36% 	<p>TS1. GHG emissions</p> <p>For HDVs and special purpose vehicles:</p> <p>The fleet must be composed of the following shares of vehicles equipped with one of the eligible technologies set by the core TS1 Technological improvement options to reduce GHG emissions of vehicles:</p> <ul style="list-style-type: none"> • 2019: 32% • 2020: 40% • 2021: 48% • 2022: 56%

<ul style="list-style-type: none"> • 2022: 44% <p>For L-category vehicles: The fleet must be composed of the following shares of electric vehicles:</p> <ul style="list-style-type: none"> • 2019: 25% • 2020: 35% • 2021: 45% • 2022: 55% <p>For LCVs</p> <ul style="list-style-type: none"> • 12% of the fleet to be used under the contract must comply with the core TS1 CO₂ emissions for the category 'Purchase, lease or rental of LCVs' of the EU GPP criteria for road transport. <p>The tier applicable will correspond to the year that the call for tender is launched.</p> <p>Verification: same as the TS1 of vehicles (Section 5.1.1.2) together with the list and technical sheets or certificates of conformity of the whole fleet.</p>	<p>For L-category vehicles: The fleet must be composed of the following shares of electric vehicles:</p> <ul style="list-style-type: none"> • 2019: 40% • 2020: 50% • 2021: 60% • 2022: 70% <p>For LCVs</p> <ul style="list-style-type: none"> • 12% of the fleet to be used under the contract must comply with the comprehensive TS1 CO₂ emissions for the category 'Purchase, lease or rental of LCVs' of the EU GPP criteria for transport • 25% of the fleet to be used under the contract must comply with the core TS1 CO₂ emissions for the category 'Purchase, lease or rental of LCVs' of the EU GPP criteria for road transport. <p>The tier applicable will correspond to the year that the call for tender is launched.</p> <p>Verification: same as the TS1 (Section 5.1.1.2) of vehicles together with the list and technical sheets or certificates of conformity of the whole fleet.</p>
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TS2. Cyclelogistics (*same for core and comprehensive*)
(*in cities where the urban infrastructure is suitable*).

The tenderer must offer a service fleet that includes the use of cycles and cycle trailers, which may be electrically power assisted cycles, to minimise the use of motorised vehicles, according to the measures to minimise the environmental issues set by the TS1 Environmental management practices within the common criteria for service categories.

Verification:

The tenderer will present the specifications of the service fleet and the description of the way that cycles and cycle trailers will be used to minimise the use of motorised vehicles.

TS3. Vehicle tyres — rolling resistance (*same for core and comprehensive*)

Note: this criterion is not applicable to special purpose vehicles, i.e. truck-mounted sweepers.

All the vehicles must be equipped with tyres compliant with TS3 on vehicle tyres as defined in Section 5.1.1.2.

Verification:

Same as TS3 on vehicle tyres as defined in Section 5.1.1.2 together with the list and technical sheets of the whole fleet.

TS4. Tyre pressure monitoring systems (TPMS) (*same for core and comprehensive*)

Note: this criterion is not applicable to special purpose vehicles, i.e. truck-mounted sweepers.

All the LCVs and heavy-duty vehicles must be equipped with systems compliant with TS2 on TPMS as defined in Section 5.1.1.2.

<p>Verification:</p> <p>Same as TS2 on TPMS as defined in Section 5.1.1.2 together with the list and technical sheets of the whole fleet.</p>	
<p>TS5. Fuels <i>(same for core and comprehensive)</i></p> <p><i>Note: this criterion is applicable only if the contracting authority qualifies dedicated natural gas vehicles as eligible technology and the tenderer offers dedicated natural gas vehicles to comply with TSI of vehicles (see Section 5.1.1.2). The contracting authority may set higher percentages of renewable fuel supply according to the available supply in their national or regional market.</i></p> <p>At least 15% of the methane supply must be renewable methane.</p> <p>Verification:</p> <p>The tenderer must provide the contract(s) with supplier(s) and the description and technical specifications of the production and the dedicated fuel supply system.</p>	
<p>TS6. Air pollutant emissions <i>(These criteria apply only if the operator owns or leases the service fleet).</i></p> <p>All HDVs used in carrying out the service must meet at least Euro V.</p> <p>2019: 48% of HDVs must meet Euro VI.</p> <p>2020: 56% of HDVs must meet Euro VI.</p> <p>2021: 64% of HDVs must meet Euro VI.</p> <p>2022: 72% of HDVs must meet Euro VI.</p>	<p>TS6. Air pollutant emissions <i>(These criteria apply only if the operator owns or leases the service fleet)</i></p> <p>TS6.1. All HDVs used in carrying out the service must meet at least Euro V.</p> <p>2019: 68% of HDVs must meet Euro VI.</p> <p>2020: 76% of HDVs must meet Euro VI.</p> <p>2021: 84% of HDVs must meet Euro VI.</p>

<p>The tender should document cases where vehicles are not certified as meeting Euro V or higher, but technical after-treatment has achieved the same standard.</p> <p>All light-duty vehicles (LDVs) used in carrying out the service must meet at least Euro 5.</p> <p>2019: 50% of LDVs must meet Euro 6. 2020: 60% of LDVs must meet Euro 6. 2021: 70% of LDVs must meet Euro 6. 2022: 80% of LDVs must meet Euro 6</p> <p>All L-category vehicles used in carrying out the service must meet at least Euro 3.</p> <p>2019: 50% of L-category vehicles must meet Euro 4. 2020: 60% of L-category vehicles must meet Euro 4. 2021: 70% of L-category vehicles must meet Euro 4. 2021: 80% of L-category vehicles must meet Euro 4.</p> <p>The tier applicable will correspond to the year that the call for tender is launched.</p> <p>Verification: The tenderer must provide the technical sheets of the vehicles where emission standards are defined. For those vehicles having achieved the standard mentioned above following a technical upgrade, the measures</p>	<p>2022: 92% of HDVs must meet Euro VI.</p> <p>The tender should document cases where vehicles are not certified as meeting Euro V or higher, but technical after-treatment has achieved the same standard.</p> <p>All LDVs used in carrying out the service must meet at least Euro 5.</p> <p>2018: 60% of LDVs must meet Euro 6. 2019: 70% of LDVs must meet Euro 6. 2020: 80% of LDVs must meet Euro 6. 2021: 90% of LDVs must meet Euro 6. 2022: 100% of LDVs must meet Euro 6.</p> <p>2019: 15% of LDVs must meet the Euro 6d-TEMP or Euro 6d standard. 2020: 20% of LDVs must meet the Euro 6d-TEMP or Euro 6d standard. 2021: 25% of LDVs must meet the Euro 6d-TEMP or Euro 6d standard. 2022: 35% of LDVs must meet the Euro 6d-TEMP or Euro 6d standard.</p> <p>All L-category vehicles used in carrying out the service must meet at least Euro 3.</p> <p>2019: 70% of L-category vehicles must meet Euro 4.</p>
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<p>must be documented and included in the tender, and this must be verified by an independent third party.</p>	<p>2020: 80% of L-category vehicles must meet Euro 4. 2021: 90% of L-category vehicles must meet Euro 4. 2022: 100% of L-category vehicles must meet Euro 4.</p> <p>The tier applicable will correspond to the year that the call for tender is launched.</p> <p>TS6.2. <i>In case of urban areas with air quality issues:</i> LDVs and L-category vehicles must have zero tailpipe emissions. If there is no charging infrastructure available, or the expected use profile requires large ranges: The vehicles may at the least be zero tailpipe emissions capable, meaning a LCV that can run the minimum range of 40 km without emitting any tailpipe emissions.</p> <p>Verification: The tenderer must provide the technical sheets of the vehicles where emission standards are defined, and where applicable the partnership agreement with the urban consolidation centre.</p>
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AWARD CRITERIA

(These criteria apply only if the operators owns or leases the service fleet)

AC1. GHG emissions *(same for core and comprehensive)*

Points will be awarded to the fleet to be used under the contract with the proportion of vehicles (%) larger than the TS1 GHG emissions, in proportion to the excess over the TS1.

Verification:

See TS1 above

AC2. Air pollutant emissions *(same for core and comprehensive, not applicable if zero tailpipe emissions required for all vehicles in the technical specification TS6.2)*

Points will be awarded to those tenders offering a:

- (a) higher percentage than the one set by the TS6 (see above), OR
- (b) LDVs and L-category vehicles that have an emission performance better than Euro 6/4, OR
- (c) natural gas HDVs and zero-emission capable vehicles, meaning with a minimum range of 40 km without emitting any tailpipe emissions for cars and LCVs, and plug-in hybrid electric vehicles (PHEV), battery electric vehicles (BEV), and fuel cell electric vehicles (FCEV) for buses

for the fleet to be used under the contract, in proportion to the excess over the TS6 (see above) *(to be detailed to which extent points will be attributed to higher percentages, better performance and zero tailpipe vehicles. Zero tailpipe emissions capable vehicles must be given more points than natural gas vehicles).*

Verification:

See TS2 above

AC4. Water recirculation <i>If the contracting authority is requiring sweepers that use water for dust suppression</i> Tenders offering a service fleet will be awarded points in proportion to the share of vehicles equipped with a water recirculation system. Verification: The tenderer must present the list of the vehicles of the service fleet and their technical sheets.	
	AC5. Noise emissions Points will be awarded to those tenders offering a service fleet totally composed of vehicles compliant with the AC5 on vehicle noise emissions set in Section 5.1.1.2. Verification: The tenderer must present the list of the vehicles of the service fleet and their certificates of conformity.

5.1.2.3 Contract performance clauses
(This only applies if the operators own or lease the service fleet)

Core criteria	Comprehensive criteria
CONTRACT PERFORMANCE CLAUSES	
	CPC1. Low viscosity lubricant oils Unless the manufacturer of the vehicle recommends other types of

	<p>lubricant, the contractor must replace the lubricants of the vehicles, providing the service with low viscosity engine lubricant oils (LVL). LVL are those corresponding to SAE grade number 0W30 or 5W30 or equivalent.</p> <p>The contractor will keep records, which must be made available to the contracting authority. The contracting authority may set rules for penalties for non-compliance</p>
<p>CPC2. Vehicle tyres – rolling resistance <i>(same for core and comprehensive)</i></p> <p>The contractor must replace the worn tyres of vehicles providing the service with:</p> <ul style="list-style-type: none"> a) new tyres that comply with the highest fuel energy efficiency class for rolling resistance expressed in kg/tonne, as defined by Regulation (EC) No 1222/2009 of the European Parliament and of the Council of 25 November 2009 on the labelling of tyres with respect to fuel efficiency and other essential parameters. This contract performance clause must not prevent the use of tyres with the highest wet grip class where justified by safety, OR b) retreaded tyres. <p>The contractor will keep records, which must be made available to the contracting authority. The contracting authority may set rules for penalties for non-compliance.</p>	
<p>CPC3. Tyre noise</p> <p><i>Note: This CPC does not apply to retreaded tyres.</i></p> <p>The contractor must replace the worn tyres of vehicles providing the service with new tyres with external rolling noise emission levels 3dB below the maximum established in Regulation (EC) No 661/2009 Annex II Part C. This is equivalent to the top category (of the three available) of the EU tyre label external rolling noise class.</p>	

The external rolling noise emissions will be tested according to Annex I of Regulation (EC) No 1222/2009.

The contractor will keep records, which must be made available to the contracting authority. The contracting authority may set rules for penalties for non-compliance.

Explanatory note: on the purchase of maintenance services

The contracting authority may include these criteria within the call for tenders of vehicles maintenance services. However, these criteria only cover a small part of the maintenance activities and cannot be considered as EU GPP criteria for vehicles maintenance services.

Explanatory note: on requirements for central government procurement on the purchase of tyres

Article 6 and Annex III of the Energy Efficiency Directive (2012/27/EU), which had to be transposed into national law by June 2014, set out specific obligations for public authorities to procure certain energy efficient equipment. This includes the obligation to purchase only those tyres that:

'comply with the criterion of having the highest fuel energy efficiency class, as defined by Regulation (EC) No 1222/2009 of the European Parliament and of the Council of 25 November 2009 on the labelling of tyres with respect to fuel efficiency and other essential parameters. This requirement must not prevent public bodies from purchasing tyres with the highest wet grip class or external rolling noise class where justified by safety or public health reasons'.

This obligation is limited to central government and for purchases above the thresholds set out in the procurement directives. Moreover, the requirements have to be consistent with cost-effectiveness, economic feasibility, wider sustainability, technical suitability and sufficient competition. These factors can differ between public authorities and markets. For more guidance on interpreting this aspect of Article 6 and Annex III of the Energy Efficiency Directive for the procurement of energy-efficient products, services and buildings by central government authorities, see the Commission guidance document COM/2013/0762 final, Communication from the Commission to the European Parliament and the Council, Implementing the Energy Efficiency Directive – Commission Guidance.

Regulation (EC) No 1222/2009 is currently under revision, and as part of this process, the European Commission has put forward proposal COM(2018) 296. This CPC will need to be updated according to the new legislation, once it is in force.

6 COMMON CRITERIA FOR SERVICE CATEGORIES

6.1 SUBJECT MATTER AND SELECTION CRITERIA

SUBJECT MATTER	
<p>Purchase of public space maintenance services with low environmental impact including:</p> <ul style="list-style-type: none">– ‘cleaning services’– ‘gardening services’.	
Core criteria	Comprehensive criteria
SELECTION CRITERIA	
<p>SC1. Competences of the tenderer (<i>same for core and comprehensive</i>)</p> <p>The tenderer must have relevant competences and experience in providing environmentally conscious maintenance services that, at a minimum, include the following:</p> <ul style="list-style-type: none">- use of products that have been awarded the EU Ecolabel or other relevant EN ISO 14024 type I ecolabels that are officially recognised nationally or regionally in the Member States for the cleaning tasks in a contract;- internal or external staff training that covers environmental aspects such as correct product dilution and dosage use, discarding of wastewater and waste sorting;- identifying, evaluating and implementing the best available technologies and measures (if applicable to the specific service provided) aimed at:<ul style="list-style-type: none">• minimising water and energy consumption	

- minimising GHG emissions and air pollutants emissions
- minimising waste generation
- optimising waste management
- minimising use of pesticides, including herbicides
- minimising use of fertilisers
- minimising use of cleaning products
- minimising use of de-icing products
- protecting and promoting biodiversity;

- monitoring and reporting procedures of the environmental issues listed above.

Verification:

Tenderers must provide evidence in the form of information and references in relevant contracts carried out in the previous 5 years, which included the elements listed above. This must be supported by records of staff training activities, where the subjects covered are listed.

6.2 TECHNICAL SPECIFICATIONS AND AWARD CRITERIA

Core criteria	Comprehensive criteria
TECHNICAL SPECIFICATION	
TS1. Environmental management measures <i>(same for core and comprehensive)</i>	
The tenderers must have written procedures to:	

1. monitor, record and implement measures for the following:

- minimising energy consumption
- minimising GHG and air pollutant emissions
- minimising water consumption
- minimising products consumption (e.g. cleaning products, mineral and organic fertilisers, pesticides, de-icing products)
- minimising waste generation
- enhancing biodiversity;

2. maintain the vehicles fleet and the machinery fleet according to the manufacturer's recommendations;

3. evaluate the deployment of the plan and operational procedures, by tracking the evolution of indicators¹ and the implementation of the measures and procedures in real practice;

4. implement the necessary actions to correct deviations from the plan, and if possible prevent them in the future.

Verification:

The tenderer must provide a copy of the said written procedures.

Environmental management systems certified against the EU eco-management and audit scheme (EMAS) or ISO 14001 will be deemed to comply, if they cover the environmental objectives listed in the technical specifications and their scope includes the services that constitute the subject matter of the call for tender. The tenderer must provide the environmental policy showing the commitment to achieve these objectives, together with the certificate issued by the certification body where the scope is disclosed.

Note: the contracting authority may award points to those tenders offering significant improvements in their environmental management measures.

Explanatory note: TS1. Environmental management measures

¹It is recommended that the indicators to monitor the environmental issues be based on the functional unit 'm² of maintained area' (e.g. litres of water consumed per m², litres of consumable per m²). The minimum monitoring frequency recommended is once per season (four per year) during representative weeks. A representative week means a week where the level of activity is approximately the average of each season.

In case of biodiversity, it may be difficult to select indicators that can be used to monitor this environmental aspect. The ideal indicator would be objective-based. For example, an objective may be to increase the population of passerines, and the indicator would be the change in the number of these birds. This needs to be estimated by capturing samples, and may be too costly. In that case, it is recommended that indicators be set for the actions carried out to accomplish the objective: the number of occupied nest boxes, the increment of tree density and patch connectivity, etc.

6.3 CONTRACT PERFORMANCE CLAUSES

Core criteria	Comprehensive criteria
CONTRACT PERFORMANCE CLAUSES	
<p>CPC1. Staff training (<i>same for core and comprehensive</i>)</p> <p>For the duration of the contract, the contractor must have in place an internal staff training programme* or provide staff with the means to participate in an external training programme that covers the topics listed below, where they are pertinent to the tasks performed by the staff member, as part of the contract.</p> <p><u>For the provision of gardening services:</u></p> <ul style="list-style-type: none"> – staff must be trained on gardening practices with less environmental impact to be applied in carrying out the service. This should include at least water and energy saving practices; waste minimisation, management and selective collection, protection of biodiversity, use of products based on renewable raw materials; chemical product and container handling and management; safe, legal use of pesticides, including herbicides. – training in critical applications, including the use of chemicals, must be undertaken before the staff is allowed to undertake that type of work. <p>The contractor must present a training plan once the contract is awarded.</p> <p><u>For the provision of cleaning services:</u></p> <ul style="list-style-type: none"> – -staff must be trained on cleaning practices with less environmental impact to be applied in carrying out the service. This should include water and energy saving practices; waste minimisation, PM10 street dust reduction, minimisation of consumable goods and safe use of 	

chemicals.

- training in critical applications, including the use of chemicals, must be undertaken before the staff is allowed to undertake that type of work.

The contractor must present a training plan once the contract is awarded.

For the operation of machinery and vehicles:

- all operators of machinery and vehicles involved in carrying out the service must be sufficiently trained to deliver the contracted service in an environmentally responsible manner through the efficient utilisation of applicable machinery and vehicles.
- all operators of machinery and vehicles involved in carrying out the service for the duration of the contract period must receive information regularly on their fuel efficiency performance (at least once per month).

The yearly staff training records must be made available to the contracting authority for verification purposes. The contracting authority may set rules for penalties for non-compliance.

Explanatory note: CPC1. Staff training

** Staff possessing the relevant training through a formal educational system may be exempted from this requirement.*

Recommended values

For permanent staff and temporary staff with contracts exceeding 1 year: 16h of initial training, 8h of training as part of annual updates.

For temporary staff with contracts that do not exceed 1 year: 8h of initial training.

The duration of the training can be adjusted to the needs and conditions of the tenders.

CPC2. Environmental management measures (same for core and comprehensive)

The service provider must document and report, over the contract duration:

- the results of the monitoring of indicators,
- the maintenance activities, and
- the results of the evaluation and the correction and prevention actions, where applicable,

according to the written procedures provided for verifying the TS1 Environmental management measures.

These reports must be made available to the contracting authority for verification purposes.

The contracting authority may set rules for penalties for non-compliance and bonuses for exceeding the objectives set by the procedures to optimise the environmental issues.