



Third semester

A17. ELABORATION OF GPP TENDER MODELS TOOLKIT FOR RESOURCE EFFICIENCY

10th November 2019

Updated to 30 November 2020

Author: Fondazione Ecosistemi





Contents

1.	In	itroduction	3
2.	St	tructure of the tender models	5
2.1	•	Calls for tender	6
2.2		Funding calls	9
3.	T	ender models for resource efficiency	11
3	3.1	Calls for tenders for furniture	11
3	3.2	Calls for tender for urban furniture	21
3	3.3	Calls for tenders for building renovation and energy upgrading	30
3	3.4	Calls for tenders for road maintenance	46
3	3.5	Calls for tenders for road transport	57
3	3.6	Calls for tenders for waste collection service	64
3	3.7	Calls for tenders for public space maintenance	77
	3.8 serv	Funding calls for energy efficiency measures in public buildings and for energy ices.	98
3	3.9	Funding calls for road lighting	. 103
3.10 Funding calls for investments for public use in recreational infrastructure, tou information and small-scale tourist infrastructure (renovation, recovery, adaptation, expansion, modernization of real estate)			
	-	(ES	
		(1 – Resource efficiency: matrix of interrelation between sectors and resources, and El	
		initiatives	





1. Introduction

This toolkit is a collection of 10 tender models that can be used to integrate GPP criteria into the funding calls or calls for tenders linked to the implementation of the types of policy instruments addressed by the GPP-STREAM partners. Each partner contributed to the elaboration of the toolkit by defining one or more models of calls for tenders functional to its own policy instrument and linked to one or more resource efficiency objectives specified in the table included in the annexes (see *Annex 1*).

The tender models included in this toolkit relate to the various policy instruments tackled by GPP-STREAM partners:

- 2 National GPP Action Plans
- 4 ROP ERDF programmes
- 1 Rural Development Plan
- 1 Urban Development Plan

GPP-STREAM Partner	Policy Instrument addressed		
Ministry of Environment (Romania)	Romanian National GPP Action Plan (Planul național de achiziții publice verzi)		
Auvergne-Rhône-Alpes Energy Environment (France)	French National GPP Action (Plan National d'Actions pour les Achats Publics Durables)		
Autonomous Region Friuli-Venezia Giulia (Italy)	Regional Operational Programme of Friuli-Venezia Giulia Region (ROP – ERDF 2014-2020)		
North-East Regional Development Agency (Romania)	Regional Operational Programme of North-East Region (ROP – ERDF 2014-2020)		
Centre for Sustainability and Economic Growth (Bulgaria)	Regional Operational Programme of South-Central Region (ROP – ERDF 2014-2020)		
Association of Municipalities of Ribera Alta Region (Spain)	Regional Operational Programme of Valencian Region (ROP – ERDF 2014-2020)		
Lazio region (Italy)	Rural Development Plan 2014-2020		
Municipality of Gabrovo (Bulgaria)	The municipal development plan of Gabrovo Municipality 2014 – 2020		

The types of tender models which can support the implementation of the above-mentioned policy instruments are:

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI





- Funding calls (for ROPs and Rural Development Plans)
- Calls for tenders for procuring goods, services and works (for National GPP Action Plans and Urban Development Plans)

The table below shows, for each type of policy instrument, the respective examples of product categories/funding axis relevant for the integration of GPP criteria. The last column lists the tender models included in this toolkit and identified based on the preliminary analysis of the needs linked to the implementation of the GPP-STREAM partners' policy instruments.

Policy instrument	Relevant types of calls for tenders	Examples of relevant product/service/work categories and funding axis	Tender models included in this toolkit
National GPP Action Plan	- Calls for tenders published by contracting authorities to procure goods, services and works	 All the 20 product/service/work categories for which EU GPP common criteria are already available (the full updated list can be found at this webpage) Others: Collecting waste service 	 Calls for tenders for furniture Calls for tender for urban furniture
ROP – ERDF programme	 Funding calls published by ROP – ERDF managing authorities Calls for tenders published by contracting authorities to procure goods, services and works funded by the ROP 	From Friuli-Venezia-Giulia ROP ERDF: - Axis I and Axis II - Funding calls to provide companies with financial and technical support for the ecological conversion of their productive processes and products - Axis III - Funding calls to provide public entities with financial support for energy efficiency measures in public buildings/infrastructures and greater supply of energy from renewable sources (EU GPP criteria: Electricity, Office Building, Road lighting) - Axis IV - Funding calls to provide public entities with financial support for the development of sustainable mobility infrastructures and vehicle in urban areas	 3. Calls for tenders for building renovation and energy upgrading 4. Calls for tenders for road maintenance 5. Calls for tenders for road transport 6. Calls for tenders for waste collection service
Rural Development Plan	 Funding calls published by the Rural Development Plan managing authorities 	From Lazio Region Rural Development Plan: - M04 – Funding calls to provide agricultural enterprises with financial support to increase the energy efficiency of their manufacturing processes and production plants, the supply and use of energy from	 7. Calls for tenders for public space maintenance 8. Funding calls for energy efficiency measures in

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI





		- 11 6	1		1	1.1. 1
	•	Calls for tenders		renewable sources, and the reuse of by-		public buildings
		published by		products and waste materials generated		and for energy
		contracting		from agricultural processes.		services
		authorities to				
		procure goods,	-	M05 – Funding calls to provide financial	9.	Funding calls for
		services and works		support for hydrogeological instability		road lighting
		funded by the		prevention measures		
		Rural			10.	Funding calls for
		Development Plan	-	sub-M07.5.1 – Support for public use		investments for
				investments in recreational infrastructures,		public use in
				tourist information and small-scale tourist		recreational
				infrastructures		infrastructure,
						tourist
			_	M07 – Funding calls to Basic services and		information and
				renovation of villages in rural areas		small-scale
				(articles 19 and 20 of Regulation		tourist
				EU/2013/1305).		infrastructure
Urban	•	Calls for tenders	Fro	om EU GPP common criteria:	1	(renovation,
Development		published by local				recovery,
Plan		authorities to	_	Electricity		adaptation,
		procure goods,	_	Furniture		expansion,
		services and works	_	Public Space Maintenance		modernization of
		linked with the	_	Office Building		real estate)
		implementation of	_	Road Design, Construction and		reat estate)
		the Urban		Maintenance		
		Development Plan	_	Road Lighting		
		Development Plan		Road Transport		
			_	Noau Transport		
			O+1	ners:		
			Uli			
			-	Collecting waste service		

2. Structure of the tender models

The tender models included in this toolkit follow a structure based on the Italian experience on GPP tenders. They do not include the whole content of a tender but only those elements necessary to qualify it as a GPP tender. Therefore, the contracting authorities, whenever using these tender models, will need to add all the other eventual elements foresaw by their respective public procurement national regulation.

Each tender model is divided into three sections (which reflects the three types of procurement documents which, according to the Directive 2014/24/UE, have to be published by a contracting authority to launch the tender submission stage):

Call for Tender





- Tendering Rules
- Tender Specifications

The above-mentioned structure applies only to tender models related to calls for tender and not also to those related to funding calls, which include instead just one section, i.e., call for tender.

Each section provides the minimum elements that a call for tender or a funding call should have to be considered as a GPP call. These essential elements are listed and described in the following subparagraphs.

2.1. Calls for tender

CALL FOR TENDER

SUBJECT-MATTER OF THE CALL FOR TENDER

The subject-matter is about the product, service or work to be procured and should include a general reference to the sustainability objectives of the call. Using an environmental title makes it easier for tenderers to quickly identify what is wanted and conveys the message that the environmental performance of the products, service or work will be an important part of the contract. Examples of green title are the following: supply of urban furniture with a reduced environmental impact; provision of energy-efficient public lighting; renovation works, using environmental friendly construction materials and products.

TENDERING RULES

Tendering rules include the two following types of requirements:

- Selection criteria
- Award criteria (only the summary table)

SELECTION CRITERIA

The selection criteria are about the economic operators' requirements to participate in a tender procedure. They should address at least the two following aspects:

- Environmental management system and schemes (e.g., EMAS, ISO 14001)
- Compliance with fundamental labour, social and environmental law. This includes EU and national law, collective agreements and a list of international conventions set out in Annex X of Directive 2014/24/EU





Other aspects which are also relevant for GPP purposes and are addressed by some of the selection criteria included in the tender models of this toolkit are the following ones:

- Human and technical resources
- Experience and references
- Educational and professional qualifications of staff
- Supply chain management/tracking systems
- Samples of products
- Conformity assessment certificates

All the selection criteria should always be related and proportionate to the subject-matter of the contract. According to the European Commission's Buying Green Guide¹ this means that the approach should be tailored "to the specific requirements of the contract, including its value and the level of environmental risk involved. For example, the range of environmental selection criteria applied for a works contract will normally be greater than for a simple supply contract, unless the supplies present a particular environmental risk, e.g. chemicals or fuel which must be safely stored".

AWARD CRITERIA

A GPP call should be ideally awarded on the basis of most economically advantageous tender (MEAT), which implies an assessment of the quality of the tenders and a comparison of costs. The quality of the tenders must be assessed based on the predetermined criteria (i.e., award criteria) included in the tendering rules.

The tendering rules should always include a table with an overview of the award criteria and the respective additional marks to be awarded to tenders meeting those requirements.

TENDER SPECIFICATIONS

Tender specifications include the three following types of requirements:

- Minimum technical specifications
- Contract performance clauses
- Award criteria (detailed description of the requirements)

MINIMUM TECHNICAL SPECIFICATIONS (MANDATORY CRITERIA)

The minimum technical specifications describe the environmental features which the product, work or service being procured must mandatorily have. They should be clear and understandable by all operators. They should be also followed by the lists of the alternative means of proof bidders must submit to prove compliance during the three different procedure stages, i.e., tender submission, before the signing of the contract, contract execution. On top of requiring the submission of means

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI

7

¹ https://ec.europa.eu/environment/gpp/pdf/Buying-Green-Handbook-3rd-Edition.pdf





of proof, depending on the type of contract to be awarded, the contracting authorities decide whether to carry out specific on-site inspections or verifications on products, before or during contract execution, to verify compliance.

This type of requirements should be therefore organized as follows:

- A. Minimum technical specification
- B. Means of proof to be submitted during tender
- C. Verification to be carried out/Means of proof to be submitted before the signing of the contract
- D. Verification to be carried out/Means of proof to be submitted during the execution of the contract

When the tender is related to the purchase of products, the minimum technical specifications should always address <u>at least</u> the three following aspects:

- 1. Secondary raw materials AND/OR recycled contents
- 2. Eco-design criteria
- 3. Dangerous substances

CONTRACT PERFORMANCE CLAUSES (MANDATORY CRITERIA)

The contract performance clauses are about the requirements related to the execution of the contract. Likewise the minimum technical specifications, they must be mandatory criteria and should be followed by the lists of the alternative means of proof that bidders must submit to prove compliance. Therefore, this type of requirements should be organized as follows:

- A. Contract performance clause
- B. Means of proof to be submitted during tender
- C. Verification to be carried out/Means of proof to be submitted before the signing of the contract
- D. Verification to be carried out/Means of proof to be submitted during the execution of the contract

When the tender is related to the purchase of product, the contract performance clauses should address <u>at least</u> the three following aspects:

- 1. Packaging
- 2. Transport
- 3. Warranties

AWARD CRITERIA

Award criteria describe the higher environmental performances (compared to those set by the minimum technical specifications) a product, service or work should have to be awarded the extra technical marks indicated in the table included in the "tendering rules" section.





The structure of this type of requirements follows the one shown for both the minimum technical specifications and the contract performance clauses. Therefore, it should be organized as follows:

- A. Award criteria
- B. Means of proof to be submitted during tender
- C. Verification to be carried out/Means of proof to be submitted before the signing of the contract
- D. Verification to be carried out/Means of proof to be submitted during the execution of the contract

When a tender is related to the purchase of products, the award criteria should address <u>at least</u> the three following aspects:

- 1. Better environmental performance (compared to those set by the minimum technical specifications)
- 2. Extension of the guarantee of spare parts availability
- 3. Collection and reuse of existing products

2.2. Funding calls

CALL FOR TENDER

Among the policy instruments addressed by the GPP-STREAM partners there are also the following ERDF² and EAFRD³ regional programmes:

- Regional Operational Programme of Friuli-Venezia Giulia Region (ROP ERDF 2014-2020)
- Regional Operational Programme of North-East Region (ROP ERDF 2014-2020)
- Regional Operational Programme of South-Central Region (ROP ERDF 2014-2020)
- Regional Operational Programme of Valencian Region (ROP ERDF 2014-2020)
- Rural Development Plan 2014-2020 of Region Lazio (RDP EAFRD 2014-2020)

These programmes provide funding for projects promoted by either public authorities (e.g., regional governments, municipalities) or private companies in several sectoral areas such as: technological development and innovation, competitiveness of the production system, sustainable energy, rural development, etc.

The funding are provided through funding calls based on the criteria defined by the Managing Authority of the specific ERDF or EAFRD regional programme. These criteria are defined for each intervention action funded by the different Programme Axis and are divided into the following two types of requirements: selection criteria and award criteria.

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI

9

² European regional development fund (ERDF) – promotes balanced development in the different regions of the EU.

³ European agricultural fund for rural development (EAFRD) – focuses on resolving the particular challenges facing EU's rural areas.





The use of GPP can be integrated also in this type of calls (i.e., funding calls), either in the form of selection or award criteria. This toolkit, in the section 3.8 and 3.9, includes some GPP criteria for the funding of public works or territorial enhancement public projects, and more specifically for:

- Energy efficiency interventions and energy services for public buildings;
- Energy efficiency interventions for public street lighting systems;
- Building renovation interventions for the rural building heritage to be used for sustainable tourism.





3. Tender models for resource efficiency

This section includes a detailed description of the 10 tender models identified based on the preliminary analysis showed in section 1 of this toolkit.

3.1 Calls for tenders for furniture

CALL FOR TENDER

SUBJECT OF THE CALL FOR TENDER

Purchase or rental of interior furnishings (e.g., schools, offices, libraries) made of wood, leather, textile, with a reduced environmental impact throughout their lifecycle.

TENDERING RULES

ECONOMIC OPERATORS' REQUIREMENTS

1. Environmental management system (EMS)

A. Criteria

The production phase shall be managed using an "Environmental management system" certified by a recognised body and conform to the EU regulations (Eco-Management and Audit Scheme - EMAS) or the international standards (e.g., ISO 14001 or equivalent). Where the manufacturer does not possess a certified management system, the contracting authority shall also accept an environmental policy commitment of the manufacturer to achieving a continuous improvement of the environmental aspects in the production phase. If the production is carried out in more than one facility, the manufacturer shall prove the compliance in all of them.

B. Means of proof to be submitted during tender

- A valid copy of either the certification ISO 14001 (or equivalent) or the registration EMAS, issued by a certification body recognised at a national level.
- As an alternative to the above-mentioned certifications, the contracting authority shall accept
 an environmental policy commitment to improve the production environmental aspects,
 signed by the legal representative of the manufacturer (or in case of more than one facility, by
 the legal representatives of the suppliers and sub-supplier of the manufacturer) and including:
 a detailed description of the EMS (e.g., environmental policy, initial analysis, improvement
 plan, EMS implementation, identification of responsibilities and roles, monitoring and
 reporting system).





- Declaration of commitment from the manufacturer legal representative to accept on-site visits and inspections aimed at checking the compliance of the production facilities.
- C. Verification to be carried out before the signing of the contract
- Where the manufacturer does not possess a certified EMS, the contracting authority shall
 instruct a recognised body to visit and inspect, at the expenses of the tenderer, the production
 facilities to check whether or not the production phase is in compliance with what was stated
 at tendering stage.

AWARD CRITERIA

The contract is awarded based on the most economically advantageous tender (MEAT) and according to the criteria and sub-criteria listed in the table below. For each criteria the table specifies the corresponding marks to be awarded to compliant technical offer.

CRITERIA	SUB-CRITERIA	MARKS	
TECHNICAL OFFER		70	
Better technical performa	Better technical performances		
After-sales support service		5	
Delivery time			
Better environmental perfe	ormances	50	
	At least 80% of plastic content made of recycled plastic	30	
	Extension of the guarantee of spare parts availability	10	
	Collection and reuse of existing furnishings	10	
ECONOMIC OFFER		30	
TOTAL		100	

TENDER SPECIFICATIONS

MINIMUM TECHNICAL SPECIFICATIONS (MANDATORY CRITERIA)

2. Secondary raw materials and/or recycled contents

2.1 Recycled wood

A. Criteria

The furniture components/materials shall be partly or completely made of recycled wood.





B. Means of proof to be submitted during tender

- Certification "FSC® Recycled", "FSC® mixed" or "PEFC Recycled™".
- Any other valid product certification, issued by a recognised certification body and proving the recycled content of wood (e.g., EPD, Ecolabel, or equivalent)⁴.

2.2 Recycled plastic

A. Criteria

At least 50% by weight of the plastic component of the furniture (if any) shall be made of recycled plastic.

- B. Means of proof to be submitted during tender
- A valid product certification issued by a recognised certification body and proving the recycled content of plastic (e.g., EPD, EU Ecolabel or equivalent).

3. Eco-design criteria

3.1 Durability

A. Criteria

The furniture product shall comply with the requirements set out in the latest versions of the following relevant EN standards that may relate to the durability, dimensional requirements, safety and strength of the product:

(Here contracting authorities can make reference to the specific EN standards listed in the Appendix IV of the EU GPP criteria for furniture⁵ or in other sources that are most relevant to the furniture being procured)

- B. Means of proof to be submitted during tender
- A declaration of compliance with any relevant EN standards from either the furniture manufacturer or component part/material suppliers, supported by test reports issued by recognised conformity assessment bodies.
- A copy of the certification of the awarded EU Ecolabel, as established in Commission Decision 2016/1332/EU⁶ or of other relevant ISO 14024 Type I ecolabels directly fulfilling the listed requirements, or using equivalent methods.

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI

13

⁴ Only ISO 14024 Type I Eco-labels or ISO 14025 Type III Eco-labels shall be accepted as valid means of proof.

⁵ https://ec.europa.eu/environment/gpp/pdf/toolkit/furniture_gpp.pdf

⁶ https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016D1332&from=EN





3.2 Disassemblability, substitutability and end-of-life

A. Criteria

The furniture product shall be designed to enable a non-destructive disassembly for the purpose of replacing component parts/material or reusing/recycling them at the end of the life cycle of the product. Disassembly and replacement operations should be capable of being carried out using common and basic manual tools and unskilled labour.

- B. Means of proof to be submitted during tender
- A manual with an exploded diagram of the product, illustrating the procedure to disassemble
 the furniture product components and the tools required, as well as the instructions on how
 to recycle the fractions of the disassembled material.
- EU Ecolabel, as established in Commission Decision 2016/1332/EU or other relevant ISO 14024 Type I ecolabels directly fulfilling the listed requirements.

3.3 Modularity and flexibility of use

A. Criteria

The furniture products shall be designed according to the modularity principles to enable their breaking down and reassembly for the purpose of relocating them in working places which are different in shape and dimensions.

- B. Means of proof to be submitted during tender
- A technical sheet provided by the manufacturer illustrating the modularity features of the furniture being procured.

4. Dangerous substances

4.1 Coating mixture restrictions

A. Criteria

Coating mixtures used by the furniture manufacturer to coat any wooden or metal components of the furniture product shall not be classified according to Regulation (EC) No 1272/2008 of the European Parliament and of the Council as:

- Category 1A, 1B or 2 carcinogenic, mutagenic or toxic to reproduction.
- Acutely Toxic by oral, dermal or inhalation pathways (categories 1, 2 or 3) or to the aquatic environment (category 1, 2, 3 or 4)
- Category 1 or 2 for specific target organ toxicity.





They also shall not contain any additives based cadmium, lead, chromium VI, mercury, arsenic or selenium.

The VOCs (volatile organic compounds) content of any coating mixture used shall not exceed 5% (in-can concentration), according to ISO 11890-2.

- B. Means of proof to be submitted during tender
- A declaration from the manufacturer with the list of coating mixtures used in the furniture product, supported by Safety Data Sheets that clearly indicate the hazard classification of the coating mixture and shows that the formulation is not classified with any of the classifications indicated in the criteria.
 - Additionally, the tenderer shall provide a declaration, supported by a test reports issued by recognised conformity assessment bodies, which states the following:
 - the absence of any additives based cadmium, lead, chromium VI, mercury, arsenic or selenium;
 - o a VOCs content lower than 5% (in-can concentration).
- EU Ecolabel, as established in Commission Decision 2016/1332/EU or other relevant ISO 14024
 Type I ecolabels directly fulfilling the listed requirements.
- C. Means of proof to be presented before the signing of the contract
- Where test reports are deemed by the contracting authority to be too costly for the tenderer, the contracting authority could ask the tenderer to provide, at the tendering stage, only a declaration from the legal representative stating the compliance, and postpone the request for to presentation of the test reports to the phase that precedes the signing of the contract.

4.2 Restrictions for metal

A. Criteria

Cadmium shall not be used for electroplating operations of any metal component parts used in the final furniture product.

Nickel shall only be permitted in electroplating operations if the nickel release rate from the electroplated component part is less than 0.5 µg/cm2/week according to EN 1811.

- B. Means of proof to be submitted during tender
- A declaration from the supplier of the metal component part(s) which states that no plating treatments involving cadmium or cadmium compounds have been used in any metal component parts. Where nickel has been used in electroplating operations, the tenderer shall also provide a declaration from the supplier of the metal component part(s), supported by a

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI





test report according to EN 1811, where results reveal nickel release rates to be less than 0.5 µg/cm2/week.

- EU Ecolabel, as established in Commission Decision 2016/1332/EU or of other relevant ISO 14024 Type I ecolabels directly fulfilling the listed requirements.
- C. Means of proof to be presented before the signing of the contract
- Where test reports are deemed by the contracting authority to be too costly for the tenderer, the contracting authority could ask the tenderer to provide, at the tendering stage, only a declaration from the legal representative stating the compliance, and postpone the request for to presentation of the test reports to the phase that precedes the signing of the contract.

4.3 REACH Candidate List substance restrictions

A. Criteria

The product and any component parts/materials thereof, shall not contain any REACH Candidate List substances.

- B. Means of proof to be submitted during tender
- A declaration from the manufacturer, supported by Safety Data Sheets, stating that the
 furniture product and component parts/materials thereof do not contain any specific REACH
 Candidate list substances according to the latest version of the Candidate List at the date of
 publication of the invitation to tender. This declaration shall be supported by similar
 declarations from all suppliers of component parts and component materials that remain in
 the final product.
- EU Ecolabel, as established in Commission Decision 2016/1332/EU or other relevant ISO 14024 Type I ecolabels directly fulfilling the listed requirements.

4.4 Residues of chemicals in textiles, leather and coated fabric covering materials

A. Criteria

The leather, textile fabric or coated fabric upholstery covering material shall comply with the limits specified in Table 10 of the <u>EU Ecolabel criteria for furniture</u>, as established in Commission Decision 2016/1332/EU. This criterion applies to the upholstery covering materials in the final treated form that they are to be used in the furniture product and it is in addition to the general conditions on hazardous substances set out in criterion 4.1 and 4.3.

B. Means of proof to be submitted during tender





- A declaration from the manufacturer that the leather, textile fabric or coated fabric upholstery
 covering material complies with the limits specified in Table 10, supported by test reports.
- EU Ecolabel, as established in Commission Decision 2016/1332/EU or other relevant ISO 14024 Type I ecolabels directly fulfilling the listed requirements.
- C. Means of proof to be presented before the signing of the contract
- Where test reports are deemed by the contracting authority to be too costly for the tenderer, the contracting authority could ask the tenderer to provide, at the tendering stage, only a declaration from the legal representative stating the compliance, and postpone the request for to presentation of the test reports to the phase that precedes the signing of the contract.

4.5 Formaldehyde

A. Criteria

Formaldehyde emissions from all supplied wood-based panels, in the form that they are used in the furniture product (in other words, unfaced, coated, overlaid, veneered), and which were manufactured using formaldehyde-based resins, shall be equal to or less than 65% of the E1 threshold limits for formaldehyde emissions as defined in Annex B of EN 13986.

- B. Means of proof to be submitted during tender
- A declaration from the wood-based panel supplier shall be provided, stating that the panels supplied are compliant with 65% of E1 emission limits, supported by test reports carried out according to either EN 717-1, EN 717-2 / EN ISO 12460-3 or EN 120 / EN ISO 12460-5.
- CARB phase II certification (according to ATCM 93120), F-4 star class certification (according to JIS A 1460), or equivalent.
- EU Ecolabel, as established in Commission Decision 2016/1332/EU or other relevant ISO 14024 Type I ecolabels directly fulfilling the listed requirements.
- C. Means of proof to be presented before the signing of the contract
- Where test reports are deemed by the contracting authority to be too costly for the tenderer, the contracting authority could ask the tenderer to provide, at the tendering stage, only a declaration from the legal representative stating the compliance, and postpone the request for to presentation of the test reports to the phase that precedes the signing of the contract.

5. Sourcing of legal timber for furniture production

A. Criteria





All timber used in furniture to be supplied under the contract must be legally harvested in accordance with Regulation (EU) 995/2010 (the 'EU Timber Regulation').

Any timber or timber products not covered by the Regulation (EU) 995/2010 should be either covered by FLEGT licences, covered by relevant CITES permits and certificates or subject to a due diligence system implemented by the tenderer which provides information on the country of harvest, species, quantities, supplier details and information on compliance with relevant national legislation. Where a risk of illegal timber in the supply chain is identified, the due diligence system should define procedures for mitigating this risk.

- B. Means of proof to be submitted during tender
- Certification "FSC®", "PEFC™" or equivalent.
- Any other valid certification proving that all the timber used was legally harvested.

CONTRACT PERFORMANCE CLAUSES (MANDATORY CRITERIA)

6. Product warranty and spare parts availability

A. Criteria

The tenderer shall provide a minimum five-years warranty effective from the date of delivery of the product. The tenderer shall also guarantee the availability of spare parts, or elements which achieve an equivalent function, for a period of at least five years. If the spare parts are free of charge, this should be specified in the purchase documents, otherwise their price should be fixed upfront and proportionate to the value of the procured product.

- B. Means of proof to be submitted during tender:
- A written declaration from the supplier detailing the offered period of both product warranty
 and the availability of compatible spare parts. Information on spare parts prices and contacts
 shall be also specified in the declaration.

7. Transport

A. Criteria

The supplier shall commit to deliver the furniture products by using vehicles with a maximum tail-pipe emission expressed in CO2 g/km and real driving pollutant emissions within the emission limits specified in Table 2 of the Annex of the Directive 2019/1161/UE⁷.

B. Means of proof to be submitted during tender

https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019L1161&from=EN





- Declaration of commitment from the supplier
- C. Means of proof to be presented during the execution of the contract
- A copy of the vehicle's registration document or other technical document illustrating that the emissions are below the limits specified in the abovementioned EU Directive.

8. Packaging

A. Criteria

The packaging (primary, secondary and tertiary) must be made up of materials that can be easily separated by hand into parts made up of a single material (e.g. cardboard, paper, plastic, etc.), that is recyclable and/or consists of recovered or recycled material. Plastic packaging must be identified in accordance with CR 14311 "Packaging - Marking and material identification system". At least 80% by weight of the packaging must be made of recycled material, if it is made of paper/cardboard; at least 60% by weight, if it is made of plastic.

- B. Means of proof to be submitted during tender
- For paper and cardboard packaging: "FSC® Recycled" or PEFC Recycled™ with associated license code traceable back to the producer of the packaging.
- Product certification issued by a recognized certification body, attesting the recycled content (EPD, EU Ecolabel, or equivalent).

AWARD CRITERIA

9. Better environmental performance

9.1 Higher percentage of recycled plastic

A. Criteria

At least 80% by weight of the plastic component of the furniture shall be made of recycled plastic.

- B. Means of proof to be submitted during tender
- A valid product certification issued by a recognised certification body and proving the recycled content of plastic (e.g., EPD, EU Ecolabel or equivalent).

9.2 Extension of the guarantee of spare parts availability





A. Criteria

A maximum of 5 additional points shall be awarded for each additional year of warranty and service agreement offered on top of the ones foreseen by the minimum technical specification, as follows:

- +4 or more years extra warranty: 5 points

- +3 years extra warranty: 3.75 points

- +2 years extra warranty: 2.50 points

- +1 year extra warranty: 1,25 points

B. Means of proof to be submitted during tender

A written declaration from the supplier detailing the offered period of the product warranty.

9.3 Collection and reuse of existing furnishings

A. Criteria

Tenderers shall collect the furniture directly from a site specified by the contracting authority and provide a re-use and recycling service for furniture that has reached the end of its service life. The tenderer shall provide a description of how they will extend the service life of the furniture by supplying it for reuse. Furniture items/parts that are not possible to re-use shall be disassembled into different material streams, as a minimum plastics, metals, textiles and wood before being sent to different recycling facilities. Any remaining materials shall be sent to energy recovery facilities, wherever these are available at the regional level.

An assessment of the condition of the furniture to be collected shall be provided by the contracting authority in the ITT which also may define a minimum re-use target to be met (e.g. 50% of provided furniture)

- B. Means of proof to be submitted during tender
- The tenderer shall provide details of the arrangements for the collection of the furniture, as well as re-use and recycling routes to be used. This shall include the details of all involved parties in the re-use and recycling of the furniture.





3.2 Calls for tender for urban furniture

This tender model was developed by ADR NE based on the "EU GPP Criteria for Furniture (SWD(2017) 283 final) and integrated with the Italian minimum environmental criteria for Urban Furniture."

CALL FOR TENDER

SUBJECT OF THE CALL FOR TENDER

Purchasing of new urban furniture either intended for direct contact with persons (e.g., benches, tables, park playground equipment) or not intended for such purpose (e.g., bike racks, garbage bins, boardwalk, etc.) with a reduced environmental impact throughout its life cycle.

TENDERING RULES

ECONOMIC OPERATORS' REQUIREMENTS

1. Environmental management system (EMS)

A. Criteria

The production phase shall be managed using an "Environmental management system" certified by a recognised body and conform to the EU regulations (Eco-Management and Audit Scheme - EMAS) or the international standards (e.g., ISO 14001 or equivalent). Where the manufacturer does not possess a certified management system, the contracting authority shall also accept an environmental policy commitment of the manufacturer to achieving a continuous improvement of the environmental aspects in the production phase. If the production is carried out in more than one facility, the manufacturer shall prove the compliance in all of them.

B. Means of proof to be submitted during tender

- A valid copy of either the certification ISO 14001 (or equivalent) or the registration EMAS, issued by a certification body recognised at a national level.
- As an alternative to the above-mentioned certifications, the contracting authority shall accept
 an environmental policy commitment to improve the production environmental aspects,
 signed by the legal representative of the manufacturer (or in case of more than one facility, by
 the legal representatives of the suppliers and sub-supplier of the manufacturer) and including:
 a detailed description of the EMS (e.g., environmental policy, initial analysis, improvement
 plan, EMS implementation, identification of responsibilities and roles, monitoring and
 reporting system).

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI

⁸ https://www.minambiente.it/sites/default/files/archivio/allegati/GPP/2017/allegato_arredo_urbanopdf.pdf





- Declaration of commitment from the manufacturer legal representative to accept on-site visits and inspections aimed at checking the compliance of the production facilities.
- C. Verification to be carried out before the signing of the contract
- Where the manufacturer does not possess a certified EMS, the contracting authority shall
 instruct a recognised body to visit and inspect, at the expenses of the tenderer, the production
 facilities to check whether or not the production phase is in compliance with what was stated
 at tendering stage.

AWARD CRITERIA

The contract is awarded based on the most economically advantageous tender (MEAT) and according to the criteria and sub-criteria listed in the table below. For each criteria the table specifies the corresponding marks to be awarded to compliant technical offer.

CRITERIA	SUB-CRITERIA	MARKS	
TECHNICAL OFFER		70	
Better technical performances		10	
After-sales support service		5	
Delivery time			
Better environmental perf	ormances	50	
	At least 80% of recycled material content	30	
	Extension of the guarantee of spare parts availability	10	
	Collection and reuse of existing furnishings	10	
ECONOMIC OFFER		30	
TOTAL		100	

TENDER SPECIFICATIONS

MINIMUM TECHNICAL SPECIFICATIONS (MANDATORY CRITERIA)

- 2. Secondary raw materials and/or recycled contents
- 2.1 Recycled content in wooden furniture products
- A. Criteria





The wooden furniture components/materials shall be partly or completely made of recycled wood.

- B. Means of proof to be submitted during tender
- Certification "FSC® Recycled", "FSC® mixed" or "PEFC Recycled™".
- Any other valid product certification, issued by a recognised certification body and proving the recycled content of wood⁹.

2.2 Recycled content in furniture products/semi-finished components made of plastic, rubber, plastic/rubber or plastic/wood mixtures

A. Criteria

At least 50% by weight of the furniture products/semi-finished components made of plastic, rubber, plastic/rubber or plastic/wood mixtures (if any) shall be made of recycled material.

(Here contracting authorities may require lower percentages of plastic recycled contents - e.g., >30% - in case the piece of furniture to be procured is made of plastic semi-finished elements which can be produced only through the use of specific technologies, e.g., rotational moulding technique used to produce the plastic semi-finished components of playground slides).

- B. Means of proof to be submitted during tender
- A valid product certification issued by a recognised certification body and proving the required recycled content material¹⁰.

3. Eco-design criteria

3.1 Durability

A. Criteria

The furniture product shall comply with the requirements set out in the latest versions of the following relevant EN standards that may relate to the durability, dimensional requirements, safety and strength of the product:

(Here contracting authorities can make reference to the specific EN standards listed in the Appendix IV of the EU GPP criteria for furniture 11 or in other sources that are most relevant to the furniture being procured. In particular it shall be ensured that the furniture product is long-lasting and resistant to

-

⁹ Only ISO 14024 Type I Eco-labels or ISO 14025 Type III Eco-labels shall be accepted as valid means of proof.

¹⁰ Only ISO 14024 Type I Eco-labels or ISO 14025 Type III Eco-labels shall be accepted as valid means of proof.

¹¹ https://ec.europa.eu/environment/gpp/pdf/toolkit/furniture_gpp.pdf





biological attacks, through the use of either durable natural timber, according to EN 350-2, or timber treated with the coating mixtures specified in the EN 335 standard)

- B. Means of proof to be submitted during tender
- A declaration of compliance with any relevant EN standards from either the furniture manufacturer or component part/material suppliers, supported by test reports issued by recognised conformity assessment bodies.
- Any relevant ISO 14024 Type I ecolabels directly fulfilling the listed requirements, or using equivalent methods.

3.2 Disassemblability, substitutability and end-of-life

A. Criteria

The furniture product shall be designed to enable a non-destructive disassembly for the purpose of replacing component parts/material or reusing/recycling them at the end of the life cycle of the product.

- B. Means of proof to be submitted during tender
- A manual with an exploded diagram of the product, illustrating the procedure to disassemble
 the furniture product components and the tools required, as well as the instructions on how
 to recycle the fractions of the disassembled material.

4. Dangerous substances

4.1 Coating mixture restrictions

(This criteria applies only for furniture products intended for direct contact with persons)

A. Criteria

The coating mixtures used by the furniture manufacturer to coat any components of the furniture product (e.g., primers, waxes, plastic films) are allowed only for the following functional reasons:

- Ensuring the durability of the wood, whenever the timber is of a type that, if naturally used, would not resist to biological attacks or natural events;
- Avoiding the oxidation of the metal components of the furniture product;
- Meeting necessary aesthetics requirements.

Whenever used, they shall not contain:

• any substances classified according to Regulation (EC) No 1272/2008 of the European Parliament and of the Council as:





- Category 1A, 1B or 2 carcinogenic, mutagenic or toxic to reproduction.
- Acutely Toxic by oral, dermal or inhalation pathways (categories 1, 2 or 3) or to the aquatic environment (category 1, 2, 3 or 4)
- Category 1 or 2 for specific target organ toxicity.
- The substances that meet the criteria in art. 57 and 59 of the REACH Regulation
- Any additives based cadmium, lead, chromium VI, mercury, arsenic or selenium.
- B. Means of proof to be submitted during tender
- A declaration from the legal representative of the manufacturer, supported by Safety Data Sheets, that the coating mixtures used do not contain the substances specified in the criterion. Additionally, the tenderer shall provide a declaration, supported by a test report issued by recognised conformity assessment bodies, which states the absence of any additives based cadmium, lead, chromium VI, mercury, arsenic or selenium.
- Any relevant ISO 14024 Type I ecolabels directly fulfilling the listed requirements, or using equivalent methods.

4.2 Paint and varnishes restrictions

A. Criteria

The outdoor paint and varnishes used for the surface coatings shall carry the EU Ecolabel, as established in Commission Decision 2014/312/EU¹², or shall comply at least with the following EU Ecolabel criteria included in the attachment of the same Decision:

- Criterion 3. Efficiency in use
- Criterion 4. Content of Volatile and Semi-volatile Organic Compounds (VOCs, SVOCs)
- Criterion 5. Restriction of hazardous substances and mixtures
- B. Means of proof to be submitted during tender
- EU Ecolabel, as established in Commission Decision 2014/312/EU or any other relevant ISO 14024 Type I ecolabels directly fulfilling the listed requirements, or using equivalent methods.

4.3 Restrictions of hazardous substances in furniture products/semi-finished components made of plastic, rubber, plastic/rubber or plastic/wood mixtures

(This criteria applies only for furniture products intended for direct contact with persons)

A. Criteria

The furniture products/semi-finished components made of plastic, rubber, plastic/rubber or plastic/wood mixtures shall not contain:

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI

¹² https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014D0312&from=EN





- The substances that meet the criteria in art. 57 and 59 of the REACH Regulation
- Any pigments or additives (including flame retardants) containing lead, cadmium, chromium VI, mercury, low molecular weight phthalates, polybrominated biphenyls, polybrominated diphenyl ethers, as well as boron, arsenic, tin, copper compounds.

The flame retardants shall be chemically bound to the matrix.

- B. Means of proof to be submitted during tender
- A declaration from the legal representative of the manufacturer, supported by Safety Data Sheets, that the coating mixtures used do not contain the substances specified in the criterion. Additionally, the tenderer shall provide a declaration, supported by a test report issued by recognised conformity assessment bodies, which states the absence of any additives based cadmium, lead, chromium VI, mercury, arsenic or selenium.
- Any relevant ISO 14024 Type I ecolabels directly fulfilling the listed requirements, or using equivalent methods.

5. Sourcing of legal timber for furniture production

A. Criteria

All timber used in furniture to be supplied under the contract must be legally harvested in accordance with Regulation (EU) 995/2010 (the 'EU Timber Regulation').

Any timber or timber products not covered by the Regulation (EU) 995/2010 should be either covered by FLEGT licences, relevant CITES permits and certificates or subject to a due diligence system implemented by the tenderer which provides information on the country of harvest, species, quantities, supplier details and information on compliance with relevant national legislation. Where a risk of illegal timber in the supply chain is identified, the due diligence system should define procedures for mitigating this risk.

- B. Means of proof to be submitted during tender
- Certification "FSC®", "PEFC™" or equivalent.
- Any other valid certification proving that all the timber used was legally harvested.

CONTRACT PERFORMANCE CLAUSES (MANDATORY CRITERIA)

6. Product warranty and spare parts availability

A. Criteria

The tenderer shall provide a minimum five-years warranty effective from the date of delivery of the product. The tenderer shall also guarantee the availability of spare parts, or elements which





achieve an equivalent function, for a period of at least five years. If the spare parts are free of charge, this should be specified in the purchase documents, otherwise their price should be fixed upfront and proportionate to the value of the procured product.

- B. Means of proof to be submitted during tender:
- A written declaration from the supplier detailing the offered period of both product warranty
 and the availability of compatible spare parts. Information on spare parts prices and contacts
 shall be also specified in the declaration.

7. Transport

A. Criteria

The supplier shall commit to deliver the furniture products by using vehicles with a maximum tail-pipe emission expressed in CO2 g/km and real driving pollutant emissions within the emission limits specified in Table 2 of the Annex of the Directive 2019/1161/EU¹³.

- B. Means of proof to be submitted during tender
- Declaration of commitment from the supplier
- C. Means of proof to be presented during the execution of the contract
- A copy of the vehicle's registration document or other technical document illustrating that the emissions are below the limits specified in the abovementioned EU Directive.

8. Packaging

A. Criteria

The packaging (primary, secondary and tertiary) must be made up of materials that can be easily separated by hand into parts made up of a single material (e.g. cardboard, paper, plastic, etc.), that is recyclable and/or consists of recovered or recycled material. Plastic packaging must be identified in accordance with CR 14311 "Packaging - Marking and material identification system". At least 80% by weight of the packaging must be made of recycled material, if it is made of paper/cardboard; at least 60% by weight, if it is made of plastic.

- B. Means of proof to be submitted during tender
- For paper and cardboard packaging: "FSC® Recycled" or PEFC Recycled™ with associated license code traceable back to the producer of the packaging.

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI

¹³ https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019L1161&from=EN





 Product certification issued by a recognized certification body, attesting the recycled content (EPD, EU Ecolabel, or equivalent).

AWARD CRITERIA

9. Better environmental performance

9.1 Higher percentage of recycled material of the furniture products/semi-finished components made of plastic, rubber, plastic/rubber or plastic/wood mixtures

A. Criteria

At least 80% by weight of the furniture products/semi-finished components made of plastic, rubber, plastic/rubber or plastic/wood mixtures (if any) shall be made of recycled material.

- B. Means of proof to be submitted during tender
- A valid product certification issued by a recognised certification body and proving the required recycled content material.

9.2 Extension of the guarantee of spare parts availability

A. Criteria

A maximum of 5 additional points shall be awarded for each additional year of warranty and service agreement offered on top of the ones foreseen by the minimum technical specification, as follows:

- +4 or more years extra warranty: 5 points
- +3 years extra warranty: 3.75 points
- +2 years extra warranty: 2.50 points
- +1 year extra warranty: 1,25 points
- B. Means of proof to be submitted during tender
- A declaration from the supplier detailing the offered period of the product warranty.

9.3 Collection and reuse of existing furnishings

A. Criteria

Tenderers shall collect the furniture directly from a site specified by the contracting authority and provide a re-use and recycling service for furniture that has reached the end of its service life. The tenderer shall provide a description of how they will extend the service life of the furniture by supplying it for reuse. Furniture items/parts that are not possible to re-use shall be disassembled





into different material streams, as a minimum plastics, metals, textiles and wood before being sent to different recycling facilities. Any remaining materials shall be sent to energy recovery facilities, wherever these are available at the regional level.

An assessment of the condition of the furniture to be collected shall be provided by the contracting authority in the ITT which also may define a minimum re-use target to be met (e.g. 50% of provided furniture)

- B. Means of proof to be submitted during tender
- The tenderer shall provide details of the arrangements for the collection of the furniture, as well as re-use and recycling routes to be used. This shall include the details of all involved parties in the re-use and recycling of the furniture.





3.3 Calls for tenders for building renovation and energy upgrading

This tender model was developed by CSEG based on the "EU GPP Criteria for Office Building Design, Construction and Management" (SWD(2016) 180 final) by selecting only the criteria relevant for the interventions and leaving out those ones related to the management of the buildings.

The most direct way to reduce the environmental impact of electricity consumption is to reduce demand – through energy efficiency improvements in public buildings and the purchase of more energy efficient products and through measures aimed at consumer behavior. These issues are beyond the scope of these criteria but are covered by EU GPP criteria for other product groups. The primary focus of the criteria here is to encourage greater use of electricity from renewable sources.

CALL FOR TENDER

SUBJECT OF THE CALL FOR TENDER

• The carrying out of major renovations to existing public buildings to high energy and environmental performance standards

as well as

• Upgrading the energy performance of a building aiming at clean energy use and energy generation from RES.

TENDERING RULES

ECONOMIC OPERATORS' REQUIREMENTS (SELECTION CRITERIA)

1. Selection of the design team and contractors

1.1 Competencies of the project manager

A. Criteria

The project manager shall have relevant competencies and experience in each of the following areas for which they would be responsible under the contract (select as relevant to the specific contract):

- The project management of building contracts that have met or exceeded the environmental performance requirements set by clients;





- The successful identification and management of the delivery of a range of environmental technologies and design innovations required to deliver improved environmental performance and quality;
- Involvement in the financial appraisal of environmental technologies and design innovations as part of the delivery of projects;
- Projects that included the assessment of building environmental performance using multicriteria building assessment, reporting and certification schemes;
- The use of holistic assessment tools in the design, appraisal and specification of environmentally improved buildings, including LCC and LCA.
- B. Means of proof to be submitted during tender or presented before the signing of the contract

Evidence in the form of information and references related to relevant contracts in the previous 5 years in which the above elements have been carried out. This shall be supported by CVs for personnel who will work on the project.

1.2 Competencies of the design team

A. Criteria

The architect, consultant and/or design team consortium shall have relevant competencies and experience in each of the following areas for which they would be responsible under the contract:

- The management of building contracts that have delivered environmental performance that goes beyond minimum building-code requirements (specify if national, regional, local or other) regarding the following aspects (to be completed with elements deemed important by the contracting authority and not covered below);
- Energy efficient building fabric and services design for new-build and/or renovation projects (select as appropriate), including if available measured energy performance data per m2 from completed projects including heating, cooling, lighting, hot water and auxiliary equipment;
- The specification and design of renewable and/or high efficiency energy generation equipment;
- Installation of Building Energy Monitoring Systems (BEMS), communication of how they can be used to building occupiers and their use to diagnose energy use patterns in buildings;
- Water efficient services design, including measured water demand per employee from completed projects;
- Bioclimatic architecture and passive design to good thermal and optical comfort, natural air purification etc;
- Assessment of building environmental performance using multi-criteria building assessment and certification schemes,
- The specification, procurement and installation of low environmental impact construction materials.
- The use of holistic assessment tools in the design and specification of environmentally improved buildings including LCC and LCA. Comparative studies in compliance with ISO 14040/14044 or EN 15978





- Design, specification and monitoring to address daylighting and glare, thermal comfort and indoor air quality
- The development and implementation of staff travel plans, including infrastructure for low emission vehicles and bicycles

Project experience and Continuous Professional Development (CPD) of relevance to these areas shall be highlighted.

The contracting authority may require a minimum number of contracts according to the nature of the project.

B. Means of proof to be submitted during tender or presented before the signing of the contract

Evidence in the form of information and references related to relevant contracts in the previous 5 years in which the above elements have been carried out. This shall be supported by CVs of personnel who will work on the project.

1.3 Competencies of the main construction contractor and specialist contractors

A. Criteria

The construction contractor shall have relevant competencies and experience in the completion of building contracts that have been shown to have delivered improved environmental performance.

In the case of design and build contracts criteria A1 will also be relevant to the design team employed.

Relevant areas of experience shall include (as appropriate to the project and the selected GPP criteria):

- Energy efficient building fabric and services design, including if available measured energy demand per m2 from completed projects including heating, cooling, lighting, hot water and auxiliary equipment. This will have been applied in the context of new-build and/or renovation projects (select as appropriate);
- The installation, commissioning and (as relevant) ongoing operation/maintenance of renewable and/or high efficiency energy generation equipment;
- The installation of Building Energy Monitoring Systems (BEMS) and communication of how they work to building managers;
- The installation of water efficient services, including if available measured water demand per employee from completed projects;
- Functioning passive design features to achieve low energy use and good thermal and optical comfort, etc; as evidenced by post-occupancy studies;
- The procurement, installation and verification of low environmental impact construction materials. Supply chain management to ensure compliance with building assessment and certification systems and in order to support modelled resource efficiency strategies;
- The successful implementation of demolition site waste management plans in order to minimise waste arisings. Selection and knowledge of off-site treatment options.

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI





- The installation of features to address daylighting and glare, thermal comfort and indoor air quality
- B. Means of proof to be submitted during tender or presented before the signing of the contract

Evidence in the form of information and references related to previous contracts in the last 5 years in which the above elements have been carried out. This shall be supported by evidence and data from:

- Third party auditing,
- Post-occupancy auditing,
- LCA/LCC analysis and/or
- Data collection from monitoring

This shall also be supported by CVs for personnel who will work on the project and their relevant project experience.

1.4 Competencies of DBO (Design, Build and Operate arrangement) contractors and property developers

A. Criteria

- The management of design teams to achieve the permitting and construction of office buildings that met client performance requirements, including under DBO arrangements;
- The management of main contractors for the construction of office buildings that have environmentally improved performance, including under DBO arrangements.;
- The management of design teams and/or main contractors to obtain ratings according to multicriteria building assessment and certification schemes;
- Ongoing facilities management in order to optimise the performance of office buildings, including the use of systems such as BEMS, the contracting of energy managers and the ongoing monitoring/reporting on performance;
- B. Means of proof to be submitted during tender or presented before the signing of the contract

Evidence in the form of information and references related to previous projects and contracts in the last 5 years in which the above elements have been carried out. This shall also be supported by CVs for personnel who will work on the project and their relevant project experience.

1.5 Energy Management System experiences

A. Criteria

The DBO contractor or property developer who will operate the building shall be able to demonstrate experience in implementing energy management systems for sites, such as ISO 50001 or equivalent, as part of facilities management arrangements.





B. Means of proof to be submitted during tender or presented before the signing of the contract

The DBO contractor or property developer shall provide management system certifications for sites they operate or have operated over the last three years.

AWARD CRITERIA

CRITERIA	SUB-CRITERIA	MARKS
TECHNICAL OFFER		70
BETTER ENVIRONMENTAL PERF	ETTER ENVIRONMENTAL PERFORMANCE	
	Minimum Energy performance	20
	requirements	
	Low or zero carbon energy	20
	sources	
	Performance of the main	30
	building elements: Carrying	
	out of a Life Cycle Assessment	
	(LCA)	
ECONOMIC OFFER		30
TOTAL		100

TENDER SPECIFICATIONS

MINIMUM TECHNICAL SPECIFICATIONS (MANDATORY CRITERIA)

2. Detailed design and performance requirements

2.1 Minimum Energy performance

A. Criteria

The calculated energy performance of an office building shall meet the following requirements:

- For new-build projects an Energy Performance Certificate (EPC) class B or two times the kWh/m2 cut-off value (the cut-off value represents the highest energy demand (expressed in kWh/m2) that is permitted within an EPC class) for the best class or a maximum of 100 kWh/m2 (whichever is the strictest);
- For major renovations an EPC class C or three times the cut-off value for the best class or a maximum of 135 kWh/m2 (whichever is the strictest).





Means of proof to be submitted during tender:

The Design team or the Design & Build tenderer or the DBO tenderer shall submit the following information demonstrating that the building design to be submitted to the local building control for permitting complies with the GPP requirements.

This shall consist of energy performance of the building calculated according to EN 15603 or equivalent, or the national calculation methodology applicable where the building is situated. This shall be validated by the results of modelling according to ISO 13790 or equivalent. The calculations shall be verified by either a competent authority or building assessor certified to use the relevant methodologies and calculation methods.

2.2 Lighting control systems

A. Criteria

Lamps and lighting design are recommended to be procured with reference to the indoor lighting EU GPP criteria. Where lighting control systems are not a minimum requirement in a Member State or their contribution is not taken into account in the national calculation method, occupancy sensors and automatic daylight-linked dimming shall be installed in line with Technical Specification 3.2.3 of the indoor lighting EU GPP criteria (published in 2012). Where lighting control systems are not a minimum requirement in a Member State or their contribution is not taken into account in the national calculation method, occupancy sensors and automatic daylight-linked dimming shall be installed in line with Technical Specification 3.2.3 of the indoor lighting EU GPP criteria (published in 2012).

B. Means of proof to be submitted during tender

The Design team or the Design & Build tenderer or the DBO tenderer shall provide technical specifications for the lighting control systems to be installed.

2.3 Building energy management system

A. Criteria

A building energy management system (BEMS) shall be installed and commissioned that provides occupants and facilities managers with real-time information on the building's energy use by using networked sensors and a minimum of half hourly utility metering.

The user interface shall allow for information on the buildings energy use to be analysed and downloaded by occupants and facilities managers without requiring significant training. Occupants shall also be able to adjust comfort conditions in zones of the building. The





performance of key aspects of the building that can be controlled by the system shall be easy to adjust i.e. lighting, heating, cooling. Additionally the system shall allow for:

- Analysis and control of energy uses for different zones within the building (as a minimum for heating, cooling, lighting);
- Performance optimisation according to ambient conditions inside and outside the building, and;
- Diagnosis of the reason for any deviations from design performance.

Means of proof to be submitted during tender

The Design team or the Design & Build tenderer or the DBO tenderer shall provide specifications for the BEMS including information about the user interface. They shall additionally demonstrate how information will be displayed, reported and made available to at least the facilities and/or energy managers for the building.

2.4 Low or zero carbon energy sources

A. Criteria

A minimum of 10% of the primary energy demand for the building shall be supplied/generated by localised renewable energy sources (e.g. solar panels, biomass boiler, wind turbines, etc) or high efficiency and cost-effective alternative systems (e.g. cogeneration, district heating/cooling, heat pumps) installed within the curtilage of the building or which are shared with other buildings. The minimum requirement could be varied depending on the local context. This could be set with reference to local planning policies and/or a scoping study for the site.

Means of proof to be submitted during tender

The Design team or the Design & Build tenderer or the DBO tenderer shall provide designs and drawings for the energy systems to be installed together with calculations of their modelled energy generation and the net contribution to the building's primary energy use.

2.5 Staff travel plan and infrastructure

A. Criteria

A staff travel plan shall be developed for the building in consultation with the contracting authority, the local planning authority and relevant infrastructure providers. The plan shall identify specific measures that, taking into account the local context, may reduce the need for commuting to the building by private car and promote the use of more sustainable modes of transport, to include cycling and walking, public transport, low emissions vehicles, and car sharing.





As a minimum, space and infrastructure for the following modes of transport shall be integrated into the design of the building:

- Electric vehicles: Dedicated parking spaces together with associated electric recharging points;
- Bicycle storage: Secure, covered and easily accessible bicycle storage with e-bike re-charging points.

Means of proof to be submitted during tender

Design teams or contractors shall provide plans of the building showing the electric vehicle and bicycle storage space(s) and associated service points to be provided. In addition, the assumptions made in order to estimate the space provision shall be provided. Design teams or contractors shall provide an outline of a staff travel plan.

2.6 Recyclable waste storage

A. Criteria

Dedicated storage space shall be provided within the building, or within the curtilage of the building, to facilitate the segregation of recyclable materials and end-of-life products by occupiers

The waste collection area(s) shall be sized based on the likely level of occupation in order to accommodate sufficient containers to maximise recycling whilst also handling residual waste.

B. Means of proof to be submitted during tender

Design teams or contractors shall provide plans of the building showing the space(s) that have been designated for waste segregation and collection as well as the assumptions made in order to estimate the space provision.

2.7 Water saving installations

A. Criteria

All sanitary and kitchen water facilities shall be equipped with water efficient fittings that are in compliance with the criteria for sanitary tapware and toilets and flushing urinals

Means of proof to be submitted during tender

See the respective EU GPP criteria documents

2.8 Thermal comfort conditions





A. Criteria

Design indoor temperature values (minimum room temperature in winter, maximum room temperature in summer) for the office building shall comply with at least category I in accordance with EN 15251 or equivalent. Annex Compliance shall be demonstrated using dynamic thermal simulation modelling carried out according to EN ISO 13790 hourly method or equivalent.

B. Means of proof to be submitted during tender

Design teams or the Design & Build contractor or the DBO contractor shall provide modelling data for the room temperatures

2.9 Daylighting and glare control

A. Criteria

Dynamic modelling shall be used to demonstrate that during a year the useable office space achieves for a minimum of 55% of the occupied hours:

- Spatial Daylight Autonomy of ≥300 lux on the working plane, and;
- A Daylight Glare Probability value of ≤40% for locations that exceed 1000 lux (without solar control measures installed).

Both shall be measured at a working plane height which shall be defined by the contracting authority. DGP shall be measured for views of the windows at eye level.

B. Means of proof to be submitted during tender

Design teams or the Design & Build contractor or the DBO contractor shall provide a summary report based on one years' modelling data for daylighting and glare levels.

2.10 Ventilation and air quality

A. Criteria

The ventilation system shall be specified to supply air with a quality rating of IDA 1 according to EN 15251 or equivalent.

In locations with poor outdoor air quality the ventilation systems of the building shall be designed to ensure that clean air is supplied to the offices in compliance with the following criterion:

- Air intakes shall be located at least 20 metres 10 from sources of poor air quality (as defined below). Where this is not possible, the opening should be positioned as high above the ground as possible. The design shall additionally be in compliance with EN 13779;
- Ventilation system filters shall be in compliance with the specifications in table A.5 of EN 13779 or equivalent.

Poor air quality is defined as outdoor air (ODA) class 2 or 3 according to EN 13779.





B. Means of proof to be submitted during tender

The design team or the DBO contractor shall demonstrate the buildings compliance with the IDA quality rating criteria in EN 15251 or equivalent. Drawings and plans of the ventilation services detailing the air intake locations shall be provided. These shall be provided at the detailed design stage and upon completion. They shall also provide local air monitoring data from the local public authority enabling classification of the location according to EN 13779.

2.11 Installation and commissioning of building energy systems

A. Criteria

Depending on the procurement route this may also apply to systems installed by a third party energy services contractor (see Section E).

The following systems shall be designed, installed and commissioned in conformance with the agreed designs and specifications:

- Heating, cooling and ventilation (HVAC)
- Low and Zero Carbon energy technologies
- Building Energy Management System (BEMS)
- Lighting controls

Each system shall be subjected to functional performance testing, including measurement of performance.

HVAC systems shall be in conformance with EN12599 or equivalent and, as relevant to other systems installed, other applicable EN, ISO or national standards, or their equivalent.

B. Means of proof to be submitted during tender or presented before the signing of the contract

The main construction contractor or the DBO contractor shall describe and commit to carrying out a functional performance testing routine in order to ensure that the systems perform within design parameters.

2.12 Sourcing of legal timber

A. Criteria

All timber or timber products to be supplied under the contract must be legally harvested in accordance with Regulation (EU) 995/2010 (the 'EU Timber Regulation ').

B. Means of proof to be submitted during tender or presented before the signing of the contract

At the latest by the time of the award of the contract, the lead contractor shall provide information on:





- The operators or the traders (as defined in Regulation (EU) 995/2010) who will supply the timber and timber products used in the construction of the building;
- Evidence of the risk assessment and mitigation procedures put in place by the operator(s) first placing on the EU market the timber and timber products to be used in the construction of the building, in accordance with Article 6(1) (b) and (c) of Regulation (EU) 995 of 2010 as well as, where applicable, of the means whereby traders further down the supply chain ensure traceability, in accordance with Article 5 of Regulation (EU) 995 of 2010.

2.13 Site waste management

A. Criteria

Waste arisings during construction and renovation, and excluding demolition waste, shall be less than or equal to 11 tonnes per 100m2 gross internal office floor area.

A site waste management plan shall be prepared prior to the commencement of work on-site. The plan shall establish systems for the separate collection of materials on-site for re-use, recycling and other forms of recovery. The site waste management plan shall encompass:

- (i) Construction products that form main building elements, including timber, glass, metal, brick, ceramics, concrete and inert waste, as well as associated packaging materials.
- (ii) Construction products that form part of the building fit-out, including flooring, ceiling tiles, plaster and gypsum panels, plastic profiles and insulation materials, as well as associated packaging materials.

Separate material collection for re-use, recycling and recovery shall respect the waste hierarchy in Directive 2008/98/EC.

B. Means of proof to be submitted during tender or presented before the signing of the contract

The lead construction contractor, Design & Build contractor or DBO contractor shall submit a site waste management plan consisting of:

- (i) A bill of materials with estimates for waste arisings based on good practices,
- (ii) Estimates of the % re-use potential based on separate collection during the construction process,
- (iii) An estimation of the % recycling and recovery potential based on separate collection, A system shall be used to monitor and account for waste arisings and to track the destination of consignments of waste. Monitoring data shall be provided to the contracting authority.

2.14 Energy performance contract

A. Criteria

The building operator or facilities manager (as appropriate) shall agree, based on the preliminary modelling of the buildings energy consumption (see criterion A1), limits on energy consumption associated with lighting, heating, cooling, ventilation and auxiliary power. This shall exclude predicted loads relating to the users such as servers and small power loads.





The contract shall be based on a minimum of ten years averaged weather and degree days data for the location. The contract shall also define adjustments to account for possible future variations in occupancy, extreme weather events and market energy costs.

If energy usage were to exceed these limits, the building operator or facilities manager (as appropriate) would be liable for the additional costs. If energy usage were to be below these limits, the savings would be shared 50:50 (or an alternative agreed apportionment of the savings) with the contracting authority. The arrangement shall be subject to a review on an annual basis.

B. Means of proof to be submitted during tender or presented before the signing of the contract

The building operator or facilities manager shall make a contractual commitment to the agreed arrangement, including the scope and energy limits. A process for independent collation and presentation of the annual data shall be provided.

2.15 Waste management system

A. Criteria

The building manager shall implement systems that allow occupiers to segregate paper, cardboard, food and drink packaging (glass, plastic and other materials for which local separate collection systems exist) into separate streams for recycling. Batteries, ink and toner cartridges, IT equipment and furniture shall also be collected and arranged for re-use or recycling where possible.

B. Means of proof to be submitted during tender or presented before the signing of the contract

Facilities managers or DBO contractors shall submit a proposal for the systems to be used, including details of the waste streams, the segregation systems, working arrangements and contractors to be used.

CONTRACT PERFORMANCE CLAUSES (MANDATORY CRITERIA)

3. Quality of the completed building fabric

A. Criteria

The lead contractor shall test and evaluate the quality of the finished building fabric and its construction to ensure that they meet the design specifications for airtightness and continuity of insulation. Where defects are identified then remedies shall be proposed.

This shall take the form of a thermal imaging evaluation carried out in accordance with EN 13187 and a fan pressurisation test for at least 20% of the buildings useable internal floor space demonstrating that the design air tightness is 2 $m^3/(h.m^2)$ at 50 Pascals for new-build and $5m^3/(h.m^2)$ at 50 Pascals for major renovations.





The blower door test shall be carried out in accordance with EN 13829 or equivalent standards accepted by the respective building control body where the building is located.

The testing shall be carried out following practical completion of the building. The contractor shall provide a copy of the survey report or certificate confirming that the building meets the air tightness requirement following a test carried out according to EN 13829 or equivalent. There are no significant defects or irregularities in the construction details in accordance with EN 13187 or equivalent.

4. Incorporation of recycled content

A. Criteria

As materials are ordered and brought onto site, recycled content claims shall be verified for each batch of product.

The main construction contractor or the DBO contractor shall verify claims by obtaining information from supplier(s) of the construction products used. This shall include mass balance calculations supported by batch testing results, delivery documentation and/or factory production control documentation. In each the data shall be verified by a third party audit.

5. Lighting control systems

A. Criteria

Systems shall be commissioned in accordance with contract performance clause 3.3.1 from the same criterion. The main contractor shall provide an operational manual for the systems in line with GPP indoor lighting design (technical specification) criterion 3.3.1.

Training shall be provided to either the occupants and (where relevant) the appointed facilities management provider on how to use the systems. The interface with the BEMS (criterion F2) shall also be addressed.

The Design team or the Design & Build contractor or the DBO contractor shall provide a copy of the survey report or certificate confirming that testing of the lighting systems has been carried out and providing data showing that the systems perform to within design parameters. They shall additionally confirm that the required materials and training have been provided.

6. Building energy management system

A. Criteria

The BEMS shall be commissioned in accordance with the required technical specifications. The main contractor shall provide an operational manual for the Building Energy Management System (BEMS). Training shall be provided to either the occupants and (where relevant) the appointed facilities management provider on how to use the BEMS. This shall include use of the user interface to analyse and download energy data using accessible software tools. The main





construction contractor or the DBO contractor shall provide: - A copy of the survey report or certificate confirming that testing of the BEMS has been carried out, - Data showing that the systems perform within design parameters, - Confirmation that the required materials and training have been provided.

7. Installation and commissioning of low or zero carbon energy sources

A. Criteria

The low or zero carbon energy systems shall be commissioned in accordance with the required technical specifications.

The main construction contractor or the DBO contractor shall provide a copy of the survey report or certificate confirming that testing of the energy systems has been carried out and providing data showing that the systems perform within design parameters.

8. Recyclable waste storage

A. Criteria

Upon completion it shall be confirmed that dedicated storage space has been provided within the building, or within the curtilage of the building, to facilitate the segregation of recyclable materials and end-of-life products by occupiers (with reference to the requirements in criterion B6). The construction contractor, the Design & Build contractor or the DBO contractor shall provide final detailed plans of the recycling facilities as-built.

9. Air quality testing

A. Criteria

The lead contractor shall test the air quality within the building no more than four weeks following completion of the building fit-out with the materials and finishes in Criterion D5 and prior to occupation.

Testing shall be carried out for each distinct room configuration in the building that accounts for >10% of the office space. Two sample rooms with different façade aspects shall be tested per room configuration.

The test results for each room specification tested in the building shall conform with the requirements in table g.

Table h. Parameters for office air quality testing





Substance(s) to be tested	Testing parameters
Total Volatile Organic Compounds (TVOC's)	<500 μ/m³ (eight hour average) in accordance with ISO 16017-2 or equivalent
Formaldehyde	<100 µ/m ³ (30 minutes average) in accordance with ISO 16000-3 or equivalent
Particulates	An eight hour average for two particle sizes in accordance with ISO 7708 or equivalent: PM10: 50 μ/m ³ PM2.5: 15 μ/m ³

The lead construction contractor or the DBO contractor shall carry out testing and provide test results demonstrating compliance with the required parameters. All measurements shall be taken during normal occupied hours and under design ventilation conditions in which the systems have been running for at least 12-24 hours prior to testing.

AWARD CRITERIA

10. Better environmental performance

10.1 Minimum Energy performance requirements

A. Criteria

The procurer shall award points according to the modelled improvement in the energy performance of the building either:

- In proportion to how close the proposed design approaches the Member States national Nearly Zero Energy requirements in kWh/m2 or, if these are not defined,
- On the basis of a comparison of design proposals that, depending on the prevailing national minimum requirements, have a primary energy demand:
 - o Renovations: Up to 100 kWh/m2
 - New-build: Up to 60 kWh/m2

The points could be awarded in gradations of improvement of 15 kWh/m2. In all cases the combinations of measures used to achieve this performance shall result in a positive Net Present Value when the Cost-Optimal calculation methodology for a public sector office building is calculated according to the methodology in Commission Delegated Regulation No 244/2012.

10.2 Low or zero carbon energy sources

A. Criteria





The procurer shall award points in proportion to the additional primary energy demand for the building to be supplied/generated by localised renewable energy sources or high efficiency alternative systems installed within the curtilage of the building or which are shared with other buildings.

B. Means of proof to be submitted during tender

The Design team (in the case of a Design Contest) or Design & Build contractor or DBO contractor shall provide designs and drawings for the energy systems to be installed together with calculations of their modelled energy generation and the net contribution to the building's primary energy use.

10.3 Performance of the main building elements: Carrying out of a Life Cycle Assessment (LCA)

A. Criteria

The Design team or the Design & Build tenderer or the DBO tenderer shall provide a bill of materials for the proposed design and the LCA results, which shall be reported according to ISO 14044 or EN 15978. The comparison with the reference building shall be written up in a concise technical report that compares the proposed design option(s) and calculates the improvement potential.

Where the results from a building assessment and certification system are used, the tenderer's accredited building assessor shall provide verification according to the methodology used by the system.





3.4 Calls for tenders for road maintenance

CALL FOR TENDER

SUBJECT OF THE CALL FOR TENDER

Ordinary and extraordinary maintenance of existing roads.

Ordinary maintenance includes the reconstruction of one or the both surfacing layers of the road body (i.e., wear layer, binder course).

Extraordinary maintenance includes the restoration of the road structural capacity when the efficiency of the existing structure is compromised. Therefore the intervention also concerns base and sub-base layers (the load-bearing ones) of the roads (i.e., base course, sub-base course, foundation, embankment and laying surface).

TENDERING RULES

ECONOMIC OPERATORS' REQUIREMENTS

1. Environmental management system (EMS)

A. Criteria

The tenderer shall possess an "Environmental management system" certified by a recognised body and conform to the EU regulations (Eco-Management and Audit Scheme - EMAS) or the international standards (e.g., ISO 14001 or equivalent). As an alternative to the certified management system, the contracting authority shall also accept an environmental policy commitment of the tenderer to achieving a continuous improvement of the environmental aspects during the work execution.

B. Means of proof to be submitted during tender

- A valid copy of either the certification ISO 14001 (or equivalent) or the registration EMAS, issued by a certification body recognised at a national level.
- As an alternative to the above-mentioned certifications, the contracting authority shall accept
 an environmental policy commitment to improve the environmental aspects during the work
 execution, signed by the legal representative of the tenderer and including: a detailed
 description of the EMS (e.g., environmental policy, initial analysis, improvement plan, EMS
 implementation, identification of responsibilities and roles, monitoring and reporting
 system).





- Declaration of commitment from the legal representative of the tenderer to accept on-site visits and inspections aimed at checking the compliance during the work execution.
- C. Verification to be carried out during the execution of the contract
- Where the tenderer does not possess a certified EMS, the contracting authority shall instruct
 a recognised body to visit and inspect, at the expenses of the contractor, the main site or
 location of works to check whether or not the works are carried out in compliance with what
 was stated at the tendering stage.

2. Technical and professional skills

A. Criteria

The tenderer shall have at least XX years of experience in road maintenance works and shall have completed at least XX road maintenance contracts (the numbers XX shall be defined based on the complexity of the maintenance works to be contracted). As part of the contracts carried out in the last XX years, the tenderer shall prove the experience in the following specific activities:

- The commissioning of monitoring and routine maintenance activities on macro-texture (MPD);
- Evaluation of durability related to construction materials;
- The commissioning of a road congestion mitigation plan and management of congestion during construction and maintenance, including solutions such as alternative routes, tidal flow lane, hard shoulder, ITS devices and their evaluation by means of LCC analysis;
- The purchasing and use of low environmental impact construction materials and verification of their performance. Supply chain management to ensure compliance with any relevant road assessment and certification systems, for example CEEQUAL or Greenroads, etc.;
- The purchasing and use of construction materials with high recycled and re-used content and by-products in road construction and maintenance;
- The successful implementation of demolition waste and excavation materials and soil
 management plans in order to minimise waste production. Selection and knowledge of
 on-site and off-site treatment options;
- Experience with low temperature asphalt with particular regards to best techniques related to health and safety of workers;
- Construction of low-noise pavements;
- Long lasting pavements and increase of durability of the surface layers of the pavement;
- Construction and commissioning of water pollution control components and storm water retention capacity, including soft engineered components.

B. Means of proof to be submitted during tender





In addition to the company's qualification certificate for road maintenance work and other means of proof certifying further technical and professional requirements, the tenderer shall provide the following:

- The list of the works carried out in the last five years and the related certificates of satisfactory
 execution of works (which shall prove the experience of the tenderer in relation to all the
 activities listed in the criterion);
- The list of technicians or technical bodies that the tenderer will employ for the execution of the work and their related curricula highlighting the experiences indicated in the criterion.

AWARD CRITERIA

The contract is awarded based on the most economically advantageous tender (MEAT) and according to the criteria and sub-criteria listed in the table below. For each criteria the table specifies the corresponding marks to be awarded to compliant technical offer.

CRITERIA	SUB-CRITERIA	MARKS
TECHNICAL OFFER		70
Better technical performances		10
After-sales support service		5
Delivery time		5
Better environmental performances		50
	Use of higher percentages of recycled and/or recovered materials (see	30
	criterion n. 12.1)	
	Use of higher percentages of recycled and/or recovered materials for	10
	ancillary works (see criterion n. 12.2)	
	Better acoustic performances of the wear layer (see criterion n. 12.3)	
ECONOMIC OFFER		30
TOTAL		100

TENDER SPECIFICATIONS

MINIMUM TECHNICAL SPECIFICATIONS (MANDATORY CRITERIA)

- 3. Secondary raw materials and/or recycled contents
- 3.1 Use of recycled and/or recovered materials
- A. Criteria





For the construction of the road, the contractor shall use recovered/recycled/end-of-waste materials (e.g., bituminous conglomerate granulate, rubber powder) and by-products in the following minimum quantities:

- At least 70% by weight of the materials used to make the sub-base course, foundation, embankment and laying surface (considered as a whole);
- At least 50% by weight of the materials used to make base course;
- At least 40% by weight of the materials used to make the binder course;
- At least 30% by weight of the materials used to make the wear layer.
- B. Means of proof to be submitted during tender or before the signing of the contract

The contracting authority shall accept any valid product certification, issued by a recognised certification body and proving the recycled content (e.g., EPD, Ecolabel, or equivalent)¹⁴.

3.2 Use of recycled and/or recovered materials for ancillary works

For the realization of ancillary and complementary works, the contractor shall use recovered/recycled/end-of-waste materials (e.g., bituminous conglomerate granulate, rubber powder) and by-products in the following minimum quantities:

- At least 5% by weight (referred to the finished dry product) of recycled/recovered materials or by-product for the concrete prepared on site, ready-mixed concrete and precast concrete elements;
- At least 70% of recycled content for electric furnace steel;
- At least 10% of recycled material content for full cycle steel;
- At least 15% of recycled content for other materials (e.g. plastics).
- A. Means of proof to be submitted during tender or before the signing of the contract

The contracting authority shall accept any valid product certification, issued by a recognised certification body and proving the recycled content (e.g., EPD, Ecolabel, or equivalent)¹⁵.

4. Eco-design criteria

4.1 Acoustic performance of the wear layer

A. Criteria

¹⁴ Only ISO 14024 Type I Eco-labels or ISO 14025 Type III Eco-labels shall be accepted as valid means of proof.

¹⁵ Only ISO 14024 Type I Eco-labels or ISO 14025 Type III Eco-labels shall be accepted as valid means of proof.





The acoustic performance of the wear layer is such as to contain noise pollution in the surrounding environment. At the speed equal to the maximum road speed limit, the wear layer must guarantee an acoustic emission level, detectable with the Close Proximity (CPX) method according to the UNI EN ISO 11819-2 standard, lower than the limit values expressed in the following table:

Speed (km/h)	40	50	60	70	80	90	110	130
L _{CPX} limit (dB(A))	88,0	91,0	93,5	96,0	97,5	99,0	101,5	103,5

B. Verification to be carried out during the execution of the contract

Technical report containing the results of the tests demonstrating compliance with the criterion. The tests are carried out within 12 weeks before the opening to the traffic, according to the standard indicated by the criterion.

4.2 Maximum temperature for laying the bituminous mixtures

A. Criteria

The maximum temperature for laying the bituminous mixtures of **surface and binder** courses shall not exceed 120°C. Only in cases of higher viscosity special bituminous mixtures, laying temperatures up to greater than 120°C, but lower than 155°C, shall be allowed.

B. Means of proof to be submitted during tender:

 The tenderer shall provide a technical report and a workplan of the design activities, indicating the mixing and laying techniques and the maximum temperatures required by these techniques, including technical data sheets on binder formulation and asphalt mix design provided by the producer.

4.3 Sourcing of legal timber for furniture production

A. Criteria

All timber used in furniture to be supplied under the contract must be legally harvested in accordance with Regulation (EU) 995/2010 (the 'EU Timber Regulation').

Any timber or timber products not covered by the Regulation (EU) 995/2010 should be either covered by FLEGT licences, covered by relevant CITES permits and certificates or subject to a due diligence system implemented by the tenderer which provides information on the country of harvest, species, quantities, supplier details and information on compliance with relevant national legislation. Where a risk of illegal timber in the supply chain is identified, the due diligence system should define procedures for mitigating this risk.





B. Means of proof to be submitted during tender

- Certification "FSC®", "PEFC™" or equivalent.
- Any other valid certification proving that all the timber used was legally harvested.

CONTRACT PERFORMANCE CLAUSES (MANDATORY CRITERIA)

5. Monitoring the road efficiency

A. Criteria

The tenderer shall commit to carrying out, on a quarterly or half-yearly basis (depending on the duration of the road maintenance contract), the following activities:

- classification of existing road instabilities (type, frequency and extent); for this aspect, reference can be made to parameters such as PCI (pavement condition index), PSI (present serviceability index), etc;
- identification of the critical issues which can negatively affect the road efficiency over the time (landslides, erosions);
- identification of the elements which create or could lead to critical issues towards the external territory;
- identification of the nature and condition of the flooring materials by means of laboratory tests and analyses, also for their possible reuse (e.g., transfer test) in case of removal and subsequent renovation;
- information available for the reuse and recovery of the waste produced;
- identification on the territory of the plants for the supply of building materials (consisting of recovered, recycled or by-products) as well as the waste storage or treatment plants.

B. Means of proof to be submitted during tender

Declaration of commitment, signed by the tenderer legal representative, to carry out the monitoring activities.

C. Means of proof to be presented during the execution of the contract

Monitoring report.

6. Guarantee of durability

A. Criteria

The tenderer shall provide a guarantee of durability equal to:

at least 8 years for the wear layers;





- at least 5 years for semi-closed continuous surface layers (micro-draining);
- at least 5 years for continuous open surface layers (draining, semi-draining, etc.).

With regard to localized interventions, restorations and sealing, the tenderer shall provide a guarantee of durability equal to:

- 3 years under routine maintenance;
- 1 year in emergency intervention regime.

Any intervention carried out in an emergency regime shall be followed by a subsequent routine maintenance intervention (appropriately designed).

- B. Means of proof to be submitted during tender
- The tenderer shall provide a written declaration detailing the offered period of the guarantee of durability.

7. Transport

A. Criteria

The tenderer shall commit to deliver the construction materials by using vehicles with a maximum tail-pipe emission expressed in CO2 g/km and real driving pollutant emissions within the emission limits specified in Table 2 of the Annex of the DIRECTIVE (EU) 2019/1161¹⁶.

- B. Means of proof to be submitted during tender
- Declaration of commitment from the tenderer.
- C. Means of proof to be presented during the execution of the contract
- A copy of the vehicle's registration document or other technical document illustrating that the emissions are below the limits specified in the abovementioned EU Directive.

8. Environmental management of the construction site

A. Criteria

The tenderer shall commit to managing the construction site in an environmentally sustainable manner and in particular undertakes to:

• protect the natural, landscape, historical and cultural resources affected by the construction site, by fencing and protecting, for example, the areas which include ditches and streams

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI

52

¹⁶ https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019L1161&from=EN





(through riparian strips), local arboreal and shrub vegetation formations, or historical evidence elements;

- protect the trees to avoid damage to the roots, trunk and canopy (the compaction of neighbouring lands is prohibited to avoid root asphyxiation, as well as the driving of nails, the installation of supports, lighting fixtures, electric cables, etc);
- remove invasive allochthonous tree and shrub species (in particular Ailanthus altissima), including roots and stumps;
- adopt energy saving measures;
- minimize pollutants and climate-altering gases emissions, by making use of technologies with a reduced environmental impact (e.g., LED or low energy consumption gas discharge lamps, eco-diesel power generators with silencer, solar panels for hot water);
- minimize noise and vibrations also through the installation of noise shielding or covers (fixed
 or mobile) and by identifying the time slots in which the noisiest processes or the passage of
 construction vehicles must be suspended, etc.;
- adopt water saving measures through the use of rainwater, the recovery of processing water and the proper management of waste water in the construction site;
- adopt measures to reduce dust and fumes in the working areas through periodic spraying of water or other dust containment techniques;
- protect the soil and subsoil to avoid the risk of a decrease in organic matter, a decline in biodiversity in its various layers, local or widespread contamination, salinization, erosion;
- prepare suitable devices against accidental spills of polluting substances and materials and define the operating procedures for the management of contaminated soil.
- Protect the surface and groundwater, e.g., through the isolation of waste storage areas and the purification of runoff water before being conveyed to the final water supplies;
- reduce the visual impact of the construction site, including through screens and green areas.

The tenderer shall also commit to drawing up a plan to mitigate traffic congestion during the works, including:

- a time schedule of the foreseen maintenance activities highlighting the time intervals that could generate congestion;
- the identification of the phases that may require a partial use of the lanes, the installation of alternating one-way streets, the occupation of roadways other than those of travel, etc.;
- the identification of alternative routes for traffic diverted during these activities, where necessary.

B. Means of proof to be submitted during tender

A declaration of commitment from the tenderer to apply all the execution conditions linked to the sustainable management of the construction site.

9. Staff training

A. Criteria





The staff employed shall be adequately trained on the procedures for the environmental management of the site, and in particular regarding:

- dust management
- water and waste management,
- waste management.
- B. Means of proof to be presented during the execution of the contract

Within 30 days from the sign of the contract, the contractor shall provide the contracting authority with the documentation certifying the training of the staff, such as curriculum, diplomas, and certificates showing that the staff participated in training activities related to the topics listed in the criterion.

10. Operating machines

A. Criteria

Starting from the year 2022, the thermal engines of the operating machines used on the construction sites must be at least Phase 3.

- B. Means of proof to be presented during tender and during the execution of the contract
- A declaration of commitment from the tenderer to apply all the execution conditions
- Within 60 days from the sign of the contract, the contractor must provide the contracting authority with a copy of the registration document of the vehicles used on the construction site, to allow for the verification of the relevant Phase.

11. Lubricating and hydraulic oils/greases with a biodegradable or regenerated base

A. Criteria

For vehicles and construction site machinery, the contractor shall use oils and greases with a biodegradable (biodegradability threshold equal to or greater than 60%) or regenerated base (at least 70% of regenerated lubricant base on the total weight of the product), provided that the requirements the manufacturer does not specifically exclude its use.

B. Means of proof to be presented during the execution of the contract

Before the start of the work, the contractor must provide the construction manager with the complete list of lubricants used indicating compliance with the criterion for each lubricant. For each type of oil he must provide the following means of proof:

for biodegradable oils:

EU Ecolabel for lubricants, or





- possession of a biodegradability threshold equal to or greater than 60%, certified with test reports according to one of the methods used for determining the ultimate biodegradability level such as OECD 310, OECD 306, OECD 301 B, OECD 301 C, OECD 301 D, OECD 301 F.
- for hydraulic fluids only, the technical sheet showing compliance with the ISO 15380 standard.

for regenerated base oils:

• finished product certification issued by a conformity assessment body certifying the regenerated base content.

AWARD CRITERIA

12. Better environmental performance

12.1 Use of higher percentages of recycled and/or recovered materials

A. Criteria

For the construction of the road, the contractor shall use recovered/recycled/end-of-waste materials (e.g., bituminous conglomerate granulate, rubber powder) and by-products in the following minimum quantities:

- At least 90% by weight of the materials used to make the sub-base course, foundation, embankment and laying surface (considered as a whole);
- At least 70% by weight of the materials used to make base course;
- At least 50% by weight of the materials used to make the binder course;
- At least 50% by weight of the materials used to make the wear layer.
- B. Means of proof to be submitted during tender or before the signing of the contract
- The contracting authority shall accept any valid product certification, issued by a recognised certification body and proving the recycled content (e.g., EPD, Ecolabel, or equivalent)¹⁷.

12.2 Use of higher percentages of recycled and/or recovered materials for ancillary works

A. Criteria

For the realization of ancillary and complementary works, the contractor shall use recovered/recycled/end-of-waste materials (e.g., bituminous conglomerate granulate, rubber powder) and by-products in the following minimum quantities:

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI

55

¹⁷ Only ISO 14024 Type I Eco-labels or ISO 14025 Type III Eco-labels shall be accepted as valid means of proof.





- At least 20% by weight (referred to the finished dry product) of recycled/recovered materials
 or by-product for the concrete prepared on site, ready-mixed concrete and precast concrete
 elements;
- At least 90% of recycled content for electric furnace steel;
- At least 20% of recycled material content for full cycle steel;
- At least 30% of recycled content for other materials (e.g. plastics).
- B. Means of proof to be submitted during tender or before the signing of the contract

The contracting authority shall accept any valid product certification, issued by a recognised certification body and proving the recycled content (e.g., EPD, Ecolabel, or equivalent)¹⁸.

12.3 Better acoustic performances of the wear layer

A. Criteria

Better acoustic performances of the wear layer such as to contain noise pollution in the surrounding environment. At the speed equal to the maximum road speed limit, the wear layer must guarantee an acoustic emission level, detectable with the Close Proximity (CPX) method according to the UNI EN ISO 11819-2 standard, lower than the limit values expressed in the following table:

Speed (km/h)	40	50	60	70	80	90	110	130
L _{CPX} limit (dB(A))	87,0	90,0	92,5	95,0	96,5	98,0	100,5	102,5

B. Verification to be carried out during the execution of the contract

Technical report containing the results of the tests demonstrating compliance with the criterion. The tests are carried out within 12 weeks before the opening to the traffic, according to the standard indicated by the criterion.

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI

Only 150 140

¹⁸ Only ISO 14024 Type I Eco-labels or ISO 14025 Type III Eco-labels shall be accepted as valid means of proof.





3.5 Calls for tenders for road transport

This tender model is informed by the insights on the environmental-related battery issues gained by the Municipality of Gabrovo throughout its procurement experience linked to the purchase of new urban electric buses. The investigation around these issues allowed to partly fill the gap left in this regard by the EU GPP criteria for road transport (SWD(2019) 2 final) which do not fully address the environmental impacts related to the production and disposal of the batteries and provide the contracting authorities with the following generic indication:

"The technology of electric vehicles is evolving very quickly towards more durable and reliable batteries. For that reason, the thresholds proposed in this criterion should be cross-checked with the options available in the market at the moment of the call for tenders".

The investigation carried out by the experts involved by the Municipality of Gabrovo showed that the electric vehicles require a different kind of charge station depending on the battery specific technology. As a result, the public authority contracts should always cover not only the vehicles but also the accompanying infrastructure. This conclusion was done after the expert investigation shown that there are two kinds of batteries for the electric buses – standard lithium-ion batteries and the new technology - capacitors. Although the electric vehicles are accepted as green/sustainable vehicles, the main problem (that is already set on a table) is with the harm materials in their batteries. This problem is better solved through using supercapacitors according to the public information about it. They do not require maintenance, the electric charge is practically not reduced at low temperature because it is not dependent on a chemicals reaction, they are more Ecology - No toxic substances are used as raw materials (unlike NiCd and lead batteries), they are with longer life – up to 15 years rather 10 years for the li-ion Battery, the work temperature is also better performance according to the https://www.supercaptech.com/battery-vswith supercapacitor it is from Charge temperature for Li-ion is 0 to 45°C and for supercapacitors is -40 to 65°C, the Discharge temperature for Li-ion is -20 to 60°C than supercapacitors is -40 to 65°C. The problem was that this technology is not yet approved. The real challenge was to allow the two technologies into one procedure, looking for the best value for money and not favouring any of the potential participants because of their battery technology. When talking about an innovative / sustainable contract, it is important not only to find a better solution, but also to try to ensure that it works as much as possible and keep best performance as long as possible. It is important to mention that in this case one of the sustainable elements is quaranteed by the contract clause which states: "The contractor undertakes in the event of a fall in battery capacity during the warranty period of less than 80% of the initial offer for replacement or repairing the battery at its own expense so that it meets the characteristics offered (tendering in the performance proposal).

CALL FOR TENDER

SUBJECT OF THE CALL FOR TENDER

Delivery of new urban electric buses and charging stations. The procedure is aimed at fulfilling the citizens' needs for a more sustainable urban transport through the purchase of electric buses,





defined as M3 vehicles by EU Directive 2007/46¹⁹, with a low environmental impact and at least 3 charging stations, including the planning, installation, management, maintenance for X years, and the supply of energy from 100% renewable sources.

TENDERING RULES

AWARD CRITERIA

The contract is awarded based on the most economically advantageous tender (MEAT) and according to the criteria and sub-criteria listed in the table below (for each criteria are specified the corresponding marks to be awarded to compliant technical offer). Award criteria: Energy consumption - 20 %; Warranty period - max. 30 %; Price - max 50 points.

CRITERIA	SUB-CRITERIA	MARKS
TECHNICAL OFFER		50
ENERGY AND EMISSION COSTS	20	
LIVES OF THE OFFERED BUSES		
	Energy expenditure (EP), in	20
	euro	
GUARANTEE CONDITIONS OF OFFERED BUSES		30
	Warranty period for the bus	3
	Warranty period for	7
	powertrains	
	Battery warranty period	13
	Warranty period for charging	7
	stations	
ECONOMIC OFFER		50
TOTAL		100

TENDER SPECIFICATIONS

MINIMUM TECHNICAL SPECIFICATIONS (MANDATORY CRITERIA)

1. Features of the electric vehicles

A. Criteria

_

¹⁹ M3 category: vehicles designed and constructed for the carriage of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass exceeding 5 tonnes.





The buses shall have the following features:

- Category M3;
- Class I;
- Power supply: 100% electric
- The bus must be provided with the interface for allowing its charging at the depot (battery charger and column);
- homologation in the basic electric version, in one of the countries of the European Union;
- homogeneity, throughout the supply lot, of the chassis, engine, door system, interface for fast and slow charging stations, battery pack;
- compatibility of fast charging operations with the presence of passengers on board or during their getting on/off the bus;
- minimum autonomy in the urban cycle of no less than xxx km;
- compliance with the requirements and characteristics established for fittings by national, regional or local regulations on sustainable mobility (e.g., air conditioning system, line and route indicators of the type "LED light with fixed, variable and non-sliding writing and with an internal and external audio-visual system for the next stop", platform or slide with a maximum guaranteed capacity of 350 kg, structural and circuit arrangements necessary for the installation of the devices for electronic ticketing BIP).

Other features of interest for the contract can be added to the above list by the contracting authority.

B. Means of proof to be submitted during tender

The tenderer shall provide the technical sheet of the vehicle.

2. Charging stations

A. Criteria

Charging stations shall allow for a full charge of the batteries within a maximum of 5 hours at the bus depot or a maximum of 10 minutes at the end points of the route.

B. Means of proof to be submitted during tender

The tenderer must provide the technical sheet of the charging station.

3. Vehicle tyres — rolling resistance

A. Criteria

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

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.

B. Means of proof to be submitted during tender

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).

4. Vehicle specific eco-driving information

A. Criteria

Vehicles must be equipped with information/instructions on eco driving. In the case of ICEV, the user manual of the vehicle must include guidelines on early shifting, maintaining a steady speed at low revolutions per minute (RPM) and anticipating traffic flows. The information must include information on the use of the regenerative braking to save energy.

This information / instructions may be provided in the form of training sessions (if the public authority choses this option, it needs to prescribe a minimum amount of hours of training to be provided).

B. Means of proof to be submitted during tender

The tenderer must provide the technical sheet of the vehicle where this information is stated or a description and the contents of the training sessions.

5. Tyre noise

A. Criteria

The vehicles must be equipped with:

a) tyres whose external rolling noise emission levels are 3dB below the maximum established in Annex II, Part C of Regulation (EC) No 661/2009. This is equivalent to the top category (of the three available) of the EU tyre label external rolling noise class.

OR

b) retreaded tyres





B. Means of proof to be submitted during tender

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).

CONTRACT PERFORMANCE CLAUSES (MANDATORY CRITERIA)

6. Warranty period for the bus

A. Criteria

The tenderer shall provide a warranty on the vehicle for a period of XX years (in addition to the ones required by the national regulations).

B. Means of proof to be submitted during tender

A declaration of commitment from the tenderer to provide the required period of warranty.

7. Warranty period for powertrains

A. Criteria

The tenderer shall provide a warranty on the powertrains for a period of XX years (in addition to the ones required by the national regulations).

B. Means of proof to be submitted during tender

A declaration of commitment from the tenderer to provide the required period of warranty.

8. Battery warranty period

A. Criteria

The tenderer shall provide a warranty on the batteries for the number of years specified below (and additional to the ones required by the national regulations).

- LiFePO4 batteries: 5 years
- Lithium nickel manganese cobalt oxide (LiNiMnCoO2 or NMC) batteries: 6 years





Lithium titanate batteries: 15 yearsGraphene ultracapacitors: 11 years

The technology of electric vehicles is evolving very quickly towards more durable and reliable batteries. For that reason, the public authority should look at the latest available information on what the market can deliver when formulating the call for tenders.

Public authorities could also reward longer warranty periods via an award criterion.

B. Means of proof to be submitted during tender

A declaration of commitment from the tenderer to provide the required period of warranty

9. Warranty period for charging stations

A. Criteria

The tenderer shall provide a warranty on the charging stations for a period of XX years (in addition to the ones required by the national regulations).

B. Means of proof to be submitted during tender

A declaration of commitment from the tenderer to provide the required period of warranty.

AWARD CRITERIA

10. Warranty period for the bus/powertrains/batteries/charging stations

A. Criteria

Additional points shall be awarded for each additional year of warranty offered on top of the ones foreseen by the minimum technical specifications.

B. Means of proof to be submitted during tender

A declaration of commitment from the tenderer to provide the required period of warranty.

11. Vehicle noise

A. Criteria

Points will be awarded to vehicles whose noise emissions are 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.





B. Means of proof to be submitted during tender

The tenderer must provide the vehicle's certificate of conformity.

12. Air conditioning gases

A. Criteria

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.

B. Means of proof to be submitted during tender

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:

GWP= Σ (Substance X1 % x GWP(X1)) + (Substance X2 % x GWP(X2)) + ... (Substance Xn % x GWP(Xn))

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





3.6 Calls for tenders for waste collection service

This tender model was developed by MANRA based on its previous public procurement experience and was integrated with the following criteria:

- EU GPP criteria for public space maintenance (SWD(2019) 404 final);
- EU GPP criteria for road transport SWD(2016) 203 final;
- Italian minimum environmental criteria for the collection and management of urban waste²⁰.

CALL FOR TENDER

SUBJECT OF THE CALL FOR TENDER

The contract can be made for the purpose of the service of the urban waste collection and transport service, which includes the vehicles fleet renewal and other necessary material for the provision of said service.

This object corresponds to the following codes of the Common Public Contract Vocabulary (CPV) nomenclature according to Regulation (EC) No 213/2008 of the European Commission:

90511200-4 "Household waste collection services"

90511300-5 "Garbage collection services"

90512000-9 "Waste transport services"

This object corresponds to the following codes of the nomenclature of the Statistical Classification of Products by Activities (CPA-2008) according to Regulation (EC) No 451/2008 of the European Parliament and of the Council:

38 Waste collection, treatment and disposal services; devaluation services

38.1 Waste; waste collection services

38.11 Non-hazardous waste; non-hazardous waste collection services

38.11.1 Non-hazardous recyclable waste collection services

38.11.11 Non-hazardous recyclable household waste collection services

38.11.19 Collection services of other non-hazardous recyclable waste

38.11.2 Non-recyclable non-hazardous waste collection services

38.11.21 Collection services for non-recyclable non-hazardous household waste

38.11.29 Collection services of other non-recyclable non-hazardous waste

Which means that the collection service is intended:

a) The collection of urban solid waste (organic matter, waste fraction). They are domestic waste produced by the neighbours, which are deposited in front of the homes according to established times (door-to-door system) mainly, or deposited in the points of containers enabled for this purpose on the public road.

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI

64

²⁰ https://www.minambiente.it/sites/default/files/archivio/allegati/GPP/GPP_CAM_Rifiuti.pdf





- b) The selective collection of lightweight containers, paper and cardboard.
- c) The collection of furniture, debris and other (bulky) household waste from the scheduled collection, and those that are due to abandonments or extraordinary situations
- d) Additional services to them (e.g. maintenance, cleaning of machinery and materials)

In all cases, the transportation of waste to the treatment or transfer plant is included. The treatment of each fraction must comply with the regulations in force in the field of waste at national level.

TENDERING RULES

ECONOMIC OPERATORS' REQUIREMENTS

1. Environmental management system (EMS)

A. Criteria

The tenderer shall possess an "Environmental management system" certified by a recognised body and conform to the EU regulations (Eco-Management and Audit Scheme - EMAS) or the international standards (e.g., ISO 14001 or equivalent). As an alternative to the certified management system, the contracting authority shall also accept an environmental policy commitment of the tenderer to achieving a continuous improvement of the environmental aspects throughout the execution of the contract.

B. Means of proof to be submitted during tender

- A valid copy of either the certification ISO 14001 (or equivalent) or the registration EMAS, issued by a certification body recognised at a national level.
- As an alternative to the above-mentioned certifications, the contracting authority shall accept
 an environmental policy commitment, to improve the environmental aspects during the
 execution of the contract, signed by the legal representative of the tenderer and including: a
 detailed description of the EMS (e.g., environmental policy, initial analysis, improvement plan,
 EMS implementation, identification of responsibilities and roles, monitoring and reporting
 system).
- Declaration of commitment from the legal representative of the tenderer to accept on-site visits and inspections aimed at checking the compliance during the execution of the contract.
- C. Verification to be carried out during the execution of the contract
- Where the tenderer does not possess a certified EMS, the contracting authority shall instruct
 a recognised body to visit and inspect, at the expenses of the tenderer, the service facilities to
 check the compliance of the service with the environmental policy commitment made in the
 tendering stage.





2. Human rights and working conditions along the supply chain

A. Criteria

The tenderer not have been convicted for violations of the regulations related to human rights and working conditions (indicated below), and must comply with the following aspects:

- The corporate social responsibility (CSR) principles. The tenderer shall at least comply with the social standards recognised at the international level and defined by the following international Conventions: the 8 fundamental ILO Conventions (i.e., n. 29, 87, 98, 100, 105, 111, 138 and 182); the ILO Convention n. 155 on occupational health and safety; the ILO Convention n. 131 on minimum wage fixing; the ILO Convention n. 1 on working hours in the industry sector; the ILO Convention n. 102 on social security minimum standards; the Universal Declaration of Human Rights; art. 32 of the UN Convention of the Rights of the Child.
- The regulations, at both national and EU level, related to health and safety on the workplace, minimum wage, working hours, social security.
- Organizational and management models aimed at preventing irresponsible behaviour against the individual personality and forms of labour exploitation (e.g., illegal gang-masters).
- B. Means of proof to be submitted during tender
- A valid copy of the certification SA 8000:2014, or equivalent (e.g., certification BSCI Business Social Compliance Initiative or Social Footprint, issued by a recognised certification body.
- Any documentation proving the implementation of eventual national guidelines for the integration of social aspects in the public procurement, and/or the compliance with the related national regulation.
- Declaration of commitment from the legal representative of the tenderer to accept on-site visits and inspections.
- C. Verification to be carried out before the signing of the contract
- Where the tenderer does not possess a certification SA 8000:2014, or equivalent, the contracting authority shall instruct a recognised body to visit and inspect, at the expenses of the tenderer, the production facilities to check whether the actual working conditions are in compliance with what was stated at the tendering stage.
- D. Verification to be carried out during the execution of the contract
- Where the tenderer does not possess a certification SA 8000:2014, or equivalent, the contracting authority shall instruct a recognised body to carry out further inspections to check compliance throughout the execution of the contract.





3. Technical and professional skills

A. Criteria

Tenderers must accredit, among the related works, the performance of at least one contract with a duration equal to or greater than four years, which includes at least 75% of the contract benefits.

B. Means of proof to be submitted during tender

The accreditation will be carried out through certificates of execution issued by the competent body.

C. Means of proof to be submitted before the signing of the contract

They must prove to be in possession of the previous execution certification.

AWARD CRITERIA

The contract is awarded based on the most economically advantageous tender (MEAT) and according to the criteria and sub-criteria listed in the table below. For each criteria the table specifies the corresponding marks to be awarded to compliant technical offer.

CRITERIA	SUB-CRITERIA		
TECHNICAL OFFER		70	
Better technical performances		10	
•••••			
After-sales support sei	vice	5	
•••••			
Delivery time		5	
Better environmental performances		50	
Vehicle fleet seniority		10	
	Use of vehicles with eco-label and emission control		
	Further actions to reduce waste production 10		
	Separate collection of clear glass 5		
Household and community composting		5	
	Awareness raising campaigns for users and students	5	
ECONOMIC OFFER		30	





TOTAL 100

TENDER SPECIFICATIONS

MINIMUM TECHNICAL SPECIFICATIONS (MANDATORY CRITERIA)

4. Waste containers

A. Criteria

The containers used for both on-street and household collection of waste shall:

- bear the institutional logo of the contracting authority;
- be coloured in such a way as to be clearly recognizable, by making reference to the specific legislation (if any);
- be compliant with the GPP criteria for urban furniture (if any);
- indicate the fraction of waste to which they are intended, along with a detailed list of the type of materials which must be placed in each of them.
- be equipped with the container identification code (only for rigid containers).

Household containers intended for condominiums, if placed in areas accessible to the public, shall be equipped with a personalized access system reserved for the reference user (e.g., magnetic card, key).

B. Means of proof to be submitted during tender

The tenderer shall provide the technical sheet of the containers and/or the certification issued by a recognized certification body.

5. Vehicles used for the collection and transportation of waste

A. Criteria

At least 30% of the vehicles used by the contractor for the collection and transportation of waste during the execution of the contract shall:

- Meet at least Euro 5, or;
- Be electric, hybrid or be fuelled by methane or LPG (liquefied petroleum gas).

B. Means of proof to be submitted during tender

The tenderer shall present the vehicles' registration documents and the technical sheets provided by the manufacturer.





6. Proposals for waste reduction

A. Criteria

Attached to the offer the tenderer shall provide a proposal containing the following:

- final and intermediate (annual) objectives related to:
 - o the reduction of waste to be disposed of;
 - o the reduction of the environmental impacts from waste management;
- actions to achieve these objectives, indicating for each waste stream:
 - methods and timing of implementation, as well as skills and number of personnel needed;
 - o any expected burden on the user both in economic terms and in terms of the complexity of the operations to be carried out;
- further useful tips for reducing the production of waste and the environmental impact.

B. Means of proof to be submitted during tender

Technical explanatory report of the proposal.

7. Separate waste collection

A. Criteria

The household collection of waste (i.e., door-to-door) shall cover at least:

- the following fractions of waste:
 - organic waste (wet fraction)
 - residual fraction
- 70% or 50% of the users, depending on whether the service is addressed to a total of up to 100,000 users or more than 100,000 users.

Furthermore:

- the contractor shall have a system for checking the quality of the collected waste, record the improper deliveries and report them to both the user, by applying eventual sanctions, and the contracting authority;
- the contractor shall ensure, upon request, the household collection of bulky waste, including WEEE;
- the separate household collection shall be fully operational within the first year after the award of the contract;





The on-street collection of waste shall cover the following fractions of waste (provided that one or more of these fractions are excluded by the contracting authorities based on products analysis):

- paper and cardboard;
- plastics and metals, either individually or in combination with each other;
- batteries and expired medicines;
- glass;
- bulky waste, through itinerant collections carried out with the vehicles and in the places indicated in the tender documents and with a frequency of no less than 3 times / year.

B. Means of proof to be submitted during tender

A declaration of commitment from the legal representatives of the tenderer to comply with the provisions included in the criterion.

8. Collection of waste produced during public events

A. Criteria

During the public events (e.g., markets, festivals, fairs or periodic festivals), of which the tender documents must specify the number and dimension, the contractor must perform a specific separate waste collection service by arranging the necessary mobile containers and signs. This collection of waste shall cover at least the following fractions:

- paper / cardboard,
- plastics and metals, both individually and in combination with each other,
- glass,
- wet fraction,
- residual dry fraction.

B. Means of proof to be submitted during tender

A declaration of commitment from the legal representatives of the tenderer to comply with the provisions included in the criterion.

9. Development of computer applications and eco-efficient container system

A. Criteria

Within 3 months from the award of the contract, the contractor shall present a proposal related to:





- Development of computer applications by means of which the updated information is provided quickly and intuitively to the citizens and users of the service related to schedules, waste fractions to be separated, modalities and collection systems, bonuses on the waste rate, etc.
- Development of an eco-efficient container system for the collection of micro-technology that integrates state-of-the-art technologies for user identification and waste compaction.

B. Means of proof to be submitted during tender

Delivery of a preliminary project in which the proposal on the development of innovation projects to be implemented will be clearly presented.

10. Service information

A. Criteria

Within three months from the start of the contract, the following information shall be made available to the users:

- A telephone number (possibly a toll-free number) operational:
 - 24 hours a day/7 days a week (with an interactive voice response)
 - o at least 6 hours a day/5 days a week (with an operator).
- a fax number,
- an e-mail address and a website (the contractor shall reply to the communications received within 48 hours)

Telephone and internet contacts shall allow users to:

- report particular needs, disservices or criticalities in the provision of the service;
- book the collection of bulky items, WEEE, etc.;
- provide suggestions on proper waste management;
- obtain information on:
 - o the schedules and methods for the provision of the service;
 - proper modes for using the service,
 - location and functioning of the collection centres,
 - o location and functioning of the centres for the collection of reusable used goods;
 - flea markets, events for exchange and bartering, etc.,
 - quantity of waste produced, percentages of waste collected separately, and destination of the collected waste (on an annual basis);
 - home and community composting (if these activities are practiced in the area) and instructions useful for the correct functioning of domestic composters;
 - methods for contacting the service company and the contracting authority.

All interested parties must be provided, also through the website, with information related to:





- type
- quantity
- quality

of waste collected separately available at each collection centre.

B. Means of proof to be submitted during tender

A declaration of commitment from the legal representatives of the tenderer to comply with the provisions included in the criterion.

11. Periodical reports on the service

A. Criteria

The contractor shall provide, at least once every six months, the contracting authority with a report on the service which should allow to assess the effectiveness of the service with respect to user needs, the environmental impacts and any eventual critical issues.

The periodic reports must highlight the comparison with data related to previous periods (possibly provided by the contracting authority).

In particular, the periodic reports must contain the following data:

- methods of waste collection, by geographical area and number of users served;
- opening hours of each collection centre;
- quantity of waste (for each of the different fractions) collected on a monthly basis by each collection centre;
- number, severity and location of improper deliveries;
- amount of waste (for each of the different fractions) from household separate waste collection, in relation to the different types of users;
- amount of waste (for each of the different fractions) from on-street separate waste collection, in relation to the location of the collection points;
- amount of waste deriving from street sweeping, in relation to the areas of origin;
- amount of waste (for each of the different fractions) delivered on a monthly basis by the contractor to the various treatment, recycling (including composting), recovery, disposal centres;
- any sums paid by the contractor to such facilities;
- any sums paid to the contractor by these facilities, as well as the fees recognized by any relevant consortia for the collection, recycling and recovery of waste;
- documented quality of the batches of waste collected separately and their destination,
- number, type and characteristics of containers used for household and on-street separate collection;
- number, type and characteristics of the vehicles used for the collection, divided by collection method and productivity (quantity of waste transported);





- any other information necessary for completing the Unified Environmental Declaration Form or equivalent document,
- brief description of the communications made to users and of the campaigns carried out to raise the awareness of users and students;
- number and qualification of service personnel and duration of their services in relation to the different methods of carrying out waste collection,
- (if the contracting authority includes the award criterion "Domestic and community composters" in the procurement procedure, the periodic reports must also indicate the number of those registered in the Register of composters and the results of the related inspections.

The periodic reports must also be accompanied by the documentation related to:

- the contractor's relations with any Consortia for the collection, recycling and recovery of waste,
- the sums paid or collected by the contractor for the delivery of waste to organizations authorized for the collection and processing of waste.

The numerical data must be provided to the contracting authority also in electronic format.

B. Means of proof to be submitted during tender

A declaration of commitment from the legal representatives of the tenderer to comply with the provisions included in the criterion.

12. Awareness raising campaigns for users and students

A. Criteria

The contractor shall carry out, within three months from the award of the contract, awareness raising campaigns, for both users and students of the schools indicated in the tender documents, regarding the issue of minimizing the environmental impacts of waste. The campaigns must be aimed in particular at reducing waste (prevention, recycling and recovery) through separate collection and domestic composting.

B. Means of proof to be submitted during tender

A declaration of commitment from the legal representatives of the tenderer to comply with the provisions included in the criterion.

AWARD CRITERIA

13. Vehicle fleet seniority





A. Criteria

Aspects such as the age of the vehicle fleet will be assessed, giving a score of:

- at least 60% of the vehicles used for the service are up to 2 years old: 10 points.
- B. Means of proof to be submitted during tender

For the accreditation of the age of the vehicle fleet, the technical data sheet of the vehicle must be provided.

14. Use of vehicles with eco-label and emission control

A. Criteria

Additional points (15 pts.) are awarded to the tenderer who, for the collection and transport of waste, foresees the use of vehicles with the following characteristics:

- More than 40% (in number) of the vehicles meet at least Euro 6, or are electric, hybrid or gaspowered and;
- At least 50% (in number) of waste collection vehicles are equipped with single-material loading tanks and / or automatic user identification reading device.
- B. Means of proof to be submitted during tender

The technical data sheet of the vehicle must be provided.

15. Further actions to reduce waste

A. Criteria

Additional points (10pts.) are awarded to the tenderer who commits to submit to the contracting authority, within 6 months from the award of the contract, a report containing useful elements for defining actions for waste reduction. For example:

- list of the main waste producers,
- methods for increasing the dissemination of home composting and / or to improve its effectiveness,
- identification of suitable situations for the dissemination of community composting,
- ways to promote the reuse of used goods, the improvement of the quality of the separate waste collection and the sorting of waste





- identification of places and methods for the construction of infrastructures aimed at the activities of reuse of goods.
- B. Means of proof to be submitted during tender

A declaration of commitment from the legal representatives of the tenderer to comply with the provisions included in the criterion.

16. Separate collection of clear glass

A. Criteria

Additional points (5 pts.) are awarded to the tenderer who foresees the separate collection of both clear and brown glass. The points are awarded in relation to the extension of the such collection in the territory.

B. Means of proof to be submitted during tender

The tenderer shall present the project for the separate collection of clear and brown glass, including the indications related to the users served, procedures for implementing the system and frequency of the collection.

17. Household and community composting

A. Criteria

Additional points (5 pts.) are awarded to the tenderer who foresees the implementation of a household composting service including:

- The organization of information seminars and / or the distribution of information material on composting,
- The distribution of composters, together with the equipment necessary for their correct use, on free loan use or by other facilitated schemes, to the domestic users who requests it.
- Verification of correct use through annual random inspections;
- The detection and management, in a special register, of the data related to the active domestic composters.

An additional reward score is attributed to the tenderer who provides for the provision of a service in relation to community composters for large users (canteens, large condominiums, etc.) specifically identified in the tender documents and provided with the necessary authorizations or in the process of obtaining them . This service must include:





- Technical assistance for the choice of composters with characteristics and performance suited to specific situations and for their management,
- The detection and management, in a special register, of the data related to teh composters of active communities.

B. Means of proof to be submitted during tender

The tenderer shall present the project for the set-up and management of the household and/or community composting service.

18. Awareness raising campaigns for users and students

A. Criteria

Additional points (5 pts.) are awarded to the tenderer who provides for the implementation of awareness campaigns addressed at both users and students and focused on reducing waste (prevention, recycling and recovery) through separate collection and domestic composting. Such campaigns shall:

- be carried out over the entire period of the service contract, including through the replication of single specifically designed events,
- include the organization of at least one ecological day per year characterized by demonstration events.

B. Means of proof to be submitted during tender

The tenderer shall present the project for the awareness raising campaign





3.7 Calls for tenders for public space maintenance

CALL FOR TENDER

SUBJECT OF THE CALL FOR TENDER

This category can include different types of products and services. In general, the maintenance activities of public spaces (e.g., roads, bike lanes, pedestrian areas, squares, gardens) are either awarded to global service providers that provide a full maintenance service or can be subject of separate contracts. The criteria included in this tender model are extrapolated from the European GPP Criteria "Green public procurement criteria for public space maintenance" published on 13/11/2019 and address the following types of services:

- External cleaning and waste removal from the ground services;
- street cleaning with special vehicles (sweepers);
- snow and ice removal;
- green areas management.

The environmental criteria are related to both the service execution modes and the products, machinery and vehicles used during the service, such as the following ones:

Products:

- o multipurpose cleaners;
- salt for thawing;
- o amendments;
- herbicides and pesticides;
- o ornamental plants;
- turf;
- irrigation systems;

Machinery:

- o lawn mowers / hedge trimmers;
- o chainsaws:
- brushcutters;
- hedge shears;
- vacuums and blowers of leaves;
- rotary tillers;
- o shredders.

Vehicles:

- o heavy vehicles, i.e. vehicles belonging to categories N2 and N3;
- street cleaning vehicles (sweepers).
- Snow ploughs.





TENDERING RULES

ECONOMIC OPERATORS' REQUIREMENTS

1. Environmental management system (EMS)

A. Criteria

The tenderer shall possess an "Environmental management system" certified by a recognised body and conform to the EU regulations (Eco-Management and Audit Scheme - EMAS) or the international standards (e.g., ISO 14001 or equivalent). As an alternative to the certified management system, the contracting authority shall also accept an environmental policy commitment of the tenderer to achieving a continuous improvement of the environmental aspects throughout the execution of the contract.

B. Means of proof to be submitted during tender

- A valid copy of either the certification ISO 14001 (or equivalent) or the registration EMAS, issued by a certification body recognised at a national level.
- As an alternative to the above-mentioned certifications, the contracting authority shall accept
 an environmental policy commitment to improve the environmental aspects during the
 execution of the contract, signed by the legal representative of the tenderer and including: a
 detailed description of the EMS (e.g., environmental policy, initial analysis, improvement plan,
 EMS implementation, identification of responsibilities and roles, monitoring and reporting
 system).
- Declaration of commitment from the legal representative of the tenderer to accept on-site visits and inspections aimed at checking compliance during the execution of the contract.
- C. Verification to be carried out during the execution of the contract
- Where the tenderer does not possess a certified EMS, the contracting authority shall instruct
 a recognised body to visit and inspect, at the expenses of the contractor, the location where
 the service is provided to check the compliance of the service with the environmental policy
 commitment made in the tendering stage.

2. Competences of the tenderer

A. Criteria

The tenderer must have relevant competences and experience in providing environmentally conscious maintenance services that, at a minimum, include the following:





- 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:
 - 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.

B. Means of proof to be submitted during tender

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.

AWARD CRITERIA

The contract is awarded based on the most economically advantageous tender (MEAT) and according to the criteria and sub-criteria listed in the table below. For each criteria the table specifies the corresponding marks to be awarded to compliant technical offer.

CRITERIA	SUB-CRITERIA	
TECHNICAL OFFER		70
Better technical performances		10
After-sales support service		5
Delivery time		5
Better environmental performances		50
	Engine exhaust emissions (see criterion n. 23)	30
	Battery heavy metal content (see criterion n. 24)	10
	Water recirculation system (see criterion n. 25)	10
ECONOMIC OFFER		30





TOTAL		100
	1	

TENDER SPECIFICATIONS

MINIMUM TECHNICAL SPECIFICATIONS (MANDATORY CRITERIA)

3. Outdoor cleaning products

A. Criteria

- 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.
- 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.
- B. Means of proof to be submitted during tender or presented before the signing of the contract
- 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.

4. De-icing and snow removal products

A. Criteria

- 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 the next Table.





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

B. Means of proof to be submitted during tender or presented before the signing of the contract

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.

5. De-icing and snow removal operations

A. Criteria

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)

B. Means of proof to be submitted during tender or presented before the signing of the contract

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.

6. Cleaning street with reduction of PM10

A. Criteria

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):

- Street cleaning practices (mechanical & vacuum sweepers, street scrubbers, combinations).
- Implement dust binding practices (dust binding solutions, dispersion techniques);





- Traction control practices (traction sanding using wet sieved and wear-resistant rock material).
- B. Means of proof to be submitted during tender or presented before the signing of the contract

Tenderers must provide written procedures and a cleaning services plan for a PM10 street dust reduction operation.

7. Weed control on roads and paved public areas

A. Criteria

Weed control must be carried out by applying non-chemical treatment methods (except for organic vinegar), such as thermal, mechanical or biological treatments.

B. Means of proof to be submitted during tender or presented before the signing of the contract

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.

8. Ornamental plants

A. Criteria

The purchased ornamental plants must be:

- 1. x% (be defined by the procurer) organic: grown according to the requirements laid down in Regulation (EC) No 834/2007, or equivalent; and/or
- 2. x% (be defined by the procurer) integrated pest management (IPM): grown according to IPM principles as defined by the UN Food and Agricultural Organisation (FAO) IPM programme or EU Directive 2009/128/EC;
- 3. native.
- B. Means of proof to be submitted during tender or presented before the signing of the contract

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. 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.

9. Plant containers and packaging

A. Criteria

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):

- 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.
- B. Means of proof to be submitted during tender or presented before the signing of the contract

If containers are reusable, tenderers must provide a description of the take-back system. Tenderers must also provide a copy of the signed agreement with the plant nursery, if they are not the plant nursery. If the containers are recyclable, a declaration of compliance with this criterion must be supplied. 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.

10. Organic constituents of soil improvers and mulch

A. Criteria

The following materials are allowed as organic constituents of a final product:

- 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.

The following materials are not allowed as organic constituents of a final product:

- 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.

The materials derived from the recycling or recovery of sludge are only allowed if the sludge complies with the following requirements:

- 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:
- 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
- industry.
- 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 nonalcoholic beverages (except coffee, tea and cocoa).
- b) The sludge is single-source separated, meaning that there has been no mixing with effluents or sludge outside a specific production process.
- B. Means of proof to be submitted during tender or presented before the signing of the contract

Tenderers must provide the detailed composition of the product, the origin of organic matter and a declaration of compliance with the requirements above.

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.





11. Hazardous substances (heavy metals) in soil improvers

A. Criteria

The content of the following elements in the final product or constituent must not exceed the values shown below, measured in terms of dry weight (DW) of the product.

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	

B. Means of proof to be submitted during tender or presented before the signing of the contract

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.

12. Physical contaminants in soil improvers

A. Criteria

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.

B. Means of proof to be submitted during tender or presented before the signing of the contract

Tenderers must provide the relevant test reports (CEN/TS 16202 or equivalent) 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.

13. Product performance of soil improvers

A. Criteria

- a) Products must not adversely affect plant emergence and subsequent growth;
- b) The organic matter as loss on ignition of the final product must be at least 15% dry weight (% DW);
- c) The dry matter content of the final product must be at least 25% of the fresh weight (% FW).
- B. Means of proof to be submitted during tender or presented before the signing of the contract

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.

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.

14. Primary pathogens in soil improvers

A. Criteria

The content of primary pathogens in the final product must not exceed the following levels:

- a) Salmonella spp: absent in 25g fresh weight;
- b) E.coli: <1000 CFU/g fresh weight (CFU: colony-forming units).
- B. Means of proof to be submitted during tender or presented before the signing of the contract

Tenderers must provide the relevant test reports (a: ISO 6579 or equivalent; b: CEN/TR 16193) demonstrating that the above criterion is met.

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI





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.

15. Automatic irrigation

A. Criteria

The automatic irrigation systems must allow for detailed parametrisation, enabling:

- 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.

B. Means of proof to be submitted during tender or presented before the signing of the contract

Tenderers must provide appropriate documentation demonstrating that these criteria are met.

CONTRACT PERFORMANCE CLAUSES (MANDATORY CRITERIA)

16. Watering practices

A. Criteria

Watering practices must:

- 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.

B. Means of proof to be submitted during tender or presented before the signing of the contract 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.

17. Waste management

A. Criteria

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.

B. Means of proof to be submitted during tender or presented before the signing of the contract

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.

18. Pest control and invasive alien species management





A. Criteria

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.

B. Means of proof to be submitted during tender or presented before the signing of the contract

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.

19. Gardening practices and enhancement of biodiversity

A. Criteria

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

B. Means of proof to be submitted during tender or presented before the signing of the contract

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.

20. Machinery





20.1 Machine engine exhaust emissions

A. Criteria

Mobile machinery used in carrying out the service must be in compliance with the following:

- 1. Meet at least Stage V
- 2. Must be zero exhaust emission
- 2021: 50% of machinery must be zero exhaust emission
- 2022: 60% of machinery must be zero exhaust emission
- 2023: 70% of machinery must be zero exhaust emission
- 2024: 80% of machinery must be zero exhaust emission

B. Means of proof to be submitted during tender or presented before the signing of the contract

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

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.

20.2 Air pollutant emissions performance of compact sweepers and spreaders

A. Criteria

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:

- 1. Must be at least Stage IV
- 2. Must be Stage V or Euro 6/VI
 - 2021: 50% of sweepers and spreaders must meet Stage V or Euro 6/VI
 - 2022: 60% of sweepers and spreaders must meet Stage V or Euro 6/VI
 - 2023: 70% of sweepers and spreaders must meet Stage V or Euro 6/VI
 - 2024: 80% of sweepers and spreaders must meet Stage V or Euro 6/VI

3. Must be zero exhaust emission

- 2021: 50% of sweepers and spreaders must be zero exhaust emission
- 2022: 60% of sweepers and spreaders must be zero exhaust emission
- 2023: 70% of sweepers and spreaders must be zero exhaust emission
- 2024: 80% of sweepers and spreaders must be zero exhaust emission





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.

B. Means of proof to be submitted during tender or presented before the signing of the contract

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

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.

20.3 Air pollutant emissions performance

A. Criteria

- N3 vehicles and N2 vehicles with a reference mass exceeding 2 610 kg must meet Euro VI.
- N2 vehicles with a reference mass 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.
- All HDVs used in carrying out the service must meet at least Euro V.
 - 2019: 68% of HDVs must meet Euro VI.
 - 2020: 76% of HDVs must meet Euro VI.
 - 2021: 84% of HDVs must meet Euro VI.

B. Means of proof to be submitted during tender or presented before the signing of the contract

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.

20.4 Machinery battery rechargeability and quality

A. Criteria

The battery must meet the performance requirements specified below:





- 1. EN 61951-2 nickel-metal hydride batteries
- 2. EN 61960 lithium ion batteries.
- B. Means of proof to be submitted during tender or presented before the signing of the contract

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 standards specified in the criterion.

21. Vehicle fleets

21.1 Vehicles

A. Criteria

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.

HDVs (Heavy-duty vehicles) and special purpose vehicles

The fleet must be composed of the following shares of vehicles equipped with one of the technologies demonstrating well-to-wheel (WTW) GHG emissions reduction:

- 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 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.

Shares of vehicles:





- 2021: 32%
- 2022: 40%
- 2023: 48%
- 2024: 56%

For L-category vehicles (light-duty vehicles):

The fleet must be composed of the following shares of electric vehicles:

- 2021: 40%
- 2022: 50%
- 2023: 60%
- 2024: 70%

For light commercial vehicle (LCVs):

- 37% of the fleet to be used under the contract must comply with the same criteria of HDVs.
- The tier applicable will correspond to the year that the call for tender is launched.

B. Means of proof to be submitted during tender or presented before the signing of the contract

The tenderer must present the technical sheet of the vehicle where these technical or fuel technology specifications are stated.

21.2 Fuels

A. Criteria

At least 15% of the methane supply must be renewable methane.

B. Means of proof to be submitted during tender or presented before the signing of the contract

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.

21.3 Air pollutant emissions

A. Criteria

All HDVs used in carrying out the service must meet at least Euro V.





- 2021: 68% of HDVs must meet Euro VI.
- 2022: 76% of HDVs must meet Euro VI.
- 2023: 84% of HDVs must meet Euro VI.
- 2024: 92% of HDVs must meet Euro VI.
- 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.
- All LDVs used in carrying out the service must meet at least Euro 5.
 - 2021: 60% of LDVs must meet Euro 6.
 - 2022: 70% of LDVs must meet Euro 6.
 - 2023: 80% of LDVs must meet Euro 6.
 - 2024: 90% of LDVs must meet Euro 6.
 - 2025: 100% of LDVs must meet Euro 6.
 - 2021: 15% of LDVs must meet the Euro 6d-TEMP or Euro 6d standard.
 - 2022: 20% of LDVs must meet the Euro 6d-TEMP or Euro 6d standard.
 - 2023: 25% of LDVs must meet the Euro 6d-TEMP or Euro 6d standard.
 - 2024: 35% of LDVs must meet the Euro 6d-TEMP or Euro 6d standard.
- All L-category vehicles used in carrying out the service must meet at least Euro 3.
 - 2021: 70% of L-category vehicles must meet Euro 4.
 - 2022: 80% of L-category vehicles must meet Euro 4.
 - 2023: 90% of L-category vehicles must meet Euro 4.
 - 2024: 100% of L-category vehicles must meet Euro 4.
- The tier applicable will correspond to the year that the call for tender is launched.
- In case of urban areas with air quality issues: 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.

B. Means of proof to be submitted during tender or presented before the signing of the contract

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.

21.4 Tyre noise

A. Criteria

Heavy-duty vehicles (HDVs) must be equipped with:





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 available) of the EU tyre label external rolling noise class.

OR

- b) retreaded tyres.
- B. Means of proof to be submitted during tender or presented before the signing of the contract

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).

22. Staff training

A. Criteria

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.

For the provision of gardening services:

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

For the provision of cleaning services:

- 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).

B. Means of proof to be submitted during tender or presented before the signing of the contract

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.

AWARD CRITERIA

23. Engine exhaust emissions

A. Criteria

The machinery must operate with zero exhaust emissions.

B. Means of proof to be submitted during tender or presented before the signing of the contract

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

24. Battery heavy metal content

A. Criteria

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
- B. Means of proof to be submitted during tender or presented before the signing of the contract





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.

25. Water recirculation system

A. Criteria

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.

B. Means of proof to be submitted during tender or presented before the signing of the contract

The tenderer must present the technical sheet where the water recirculation system is described.





3.8 Funding calls for energy efficiency measures in public buildings and for energy services

CALL FOR TENDER

SUBJECT OF THE FUNDING CALL

The funding are intended for projects which involve either the new construction of buildings with an high environmental and energy efficiency or the requalification of already existing ones.

ELIGIBLE EXPENSES

- Final and executive planning
- Steady-state and dynamic energy audits
- Implementation of the interventions
- Inspections and testing

ASSESSMENT CRITERIA

The projects will be funded only if they are developed in compliance with at least the criteria listed below, which are taken form the EU GPP Criteria for Office Building Design, Construction and Management (SWD(2016) 180 final). The performance levels specified for buildings are updated to the most recent EU directives on energy efficiency.

1. Minimum Energy performance

The calculated energy performance of an office building shall meet the following requirements:

- Renovations: Up to 100 kWh/m2
- New-build: Up to 60 kWh/m2

A dynamic thermal simulation model compliant with the ISO 13790 hourly method or equivalent shall be used to validate the heating and cooling performance. For major renovations input data reflecting surveyed construction details of the building shall be used.

2. Building energy management system

A building energy management system (BEMS) shall be installed and commissioned that provides occupants and facilities managers with real-time information on the building's energy use.

3. Low or zero carbon energy sources

A minimum of 60% of the primary energy demand for the building shall be supplied/generated by localised renewable energy sources or high efficiency and cost-effective alternative systems





installed within the curtilage of the building or which are shared with other buildings. The remaining share of primary energy demand shall be purchased by providers which offer 100% renewable energy.

4. Heating systems, including Combined Heat and Power (CHP)

All heating systems, including those supplied by CHP units, that supply heat to either water or air based heating distribution systems for an office building shall meet the relevant Comprehensive GPP criteria that demonstrate the efficiency of each technology:

- For water-based heaters, which covers boilers and heat pumps up to 400 kW heat output and for combined heat and power units with an electricity generating capacity of less than or equal to 50 kWe: technical specifications 3.1 and 3.2 shall be met. The criteria can be accessed here: http://ec.europa.eu/environment/gpp/pdf/criteria/water_based/heaters_en.pdf
- For combined heat and power, which covers prime movers with an electricity generating capacity of greater than 50 kWe: technical specification 3.2.1 which specifies a minimum 75% annual overall efficiency and 3.2.2 which specifies requirements for 'high efficiency' cogeneration shall be met. The criteria can be accessed here:

http://ec.europa.eu/environment/gpp/pdf/chp_GPP_product_sheet.pdf.

5. Installation and commissioning of building energy systems

The following systems shall be designed, installed and commissioned in conformance with the agreed designs and specifications:

- Heating, cooling and ventilation (HVAC)
- Low and Zero Carbon energy technologies
- Building Energy Management System (BEMS)
- Lighting controls

Each system shall be subjected to functional performance testing, including measurement of performance.

HVAC systems shall be in conformance with EN12599 or equivalent and, as relevant to other systems installed, other applicable EN, ISO or national standards, or their equivalent.

6. Recyclable waste storage

Dedicated storage space shall be provided within the building, or within the curtilage of the building, to facilitate the segregation of recyclable materials and end-of-life products by occupiers.

7. Water saving installations

All sanitary and kitchen water facilities shall be equipped with water efficient fittings that are in compliance with the criteria for sanitary tapware²¹ and toilets and flushing urinals²².

8. Thermal comfort conditions

http://ec.europa.eu/environment/gpp/pdf/criteria/toilets/criteria_Toilets_en.pdf

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI

²¹ EU GPP criteria for sanitary tapware: http://ec.europa.eu/environment/gpp/pdf/criteria/sanitary/EN.pdf

²² EU GPP criteria for toilets and urinals:





Design indoor temperature values (minimum room temperature in winter, maximum room temperature in summer) for the office building shall comply with at least category I in accordance with EN 15251 or equivalent. Annex A1 shall be referred to for mechanically cooled buildings and A2 for passively cooled buildings.

Compliance shall be demonstrated using dynamic thermal simulation modelling carried out according to EN ISO 13790 hourly method or equivalent.

9. Daylighting and glare control

Dynamic modelling shall be used to demonstrate that during a year the useable office space achieves for a minimum of 55% of the occupied hours:

- Spatial Daylight Autonomy of \(\text{S300} \) lux on the working plane, and;
- A Daylight Glare Probability value of 40% for locations that exceed 1000 lux (without solar control measures installed).

Both shall be measured at a working plane height which shall be defined by the contracting authority. DGP shall be measured for views of the windows at eye level.

10. Ventilation and air quality

The ventilation system shall be specified to supply air with a quality rating of IDA 1 according to EN 15251 or equivalent.

In locations with poor outdoor air quality the ventilation systems of the building shall be designed to ensure that clean air is supplied to the offices in compliance with the following criterion:

- Air intakes shall be located at least 20 metres from sources of poor air quality (as defined below). Where this is not possible, the opening should be positioned as high above the ground as possible. The design shall additionally be in compliance with guidance A2.2 in EN 13779;.
- Ventilation system filters shall be in compliance with the specifications in table A.5 of EN 13779 or equivalent.

Poor air quality is defined as outdoor air (ODA) class 2 or 3 according to EN 13779.

11. Recycled content

The project achieves greater than or equal to 30% by value of recycled content, re-used content and/or by-products11 for the sum of the main building elements.

12. Demolition

A minimum of 80% by weight of the non-hazardous waste generated during demolition and stripout works, and excluding excavations and backfilling, shall be prepared for re-use, recycling.

13. Sourcing of legal timber

All timber or timber products17 to be supplied under the contract must be legally harvested in accordance with Regulation (EU) 995/2010 (the 'EU Timber Regulation ').

14. Site waste management

A site waste management plan shall be prepared prior to the commencement of work on-site. The plan shall identify opportunities for waste prevention and shall establish systems for the separate collection of materials on-site for re-use, recycling and other forms of recovery.

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI





15. Emissions limits

The emission of the following materials used within the project shall not exceed the limits specified in the table below:

- Ceiling tiles
- Paints and varnishes
- Textile floor and wall coverings
- Laminate and flexible floor coverings
- Wooden floor coverings

Product	Emissions limits (µg/m³)		
	3 days	28 days	
TVOCs	10,000	<1,000	
SVOCs	-	100	
Formaldehyde	-	<40	
Carcinogens - trichloroethylene, - benzene - DEHP - DBP	<10 sum total of the four substances	<1 for each substance	

AWARD CRITERIA

Additional points will be awarded in the following cases:

- Projects drawn up by a project manager with the following qualifications and relevant competencies and experience:
 - Energy efficient building fabric and services design for new-build and/or renovation projects (select as appropriate), including if available measured energy performance data per m2 from completed projects including heating, cooling, lighting, hot water and auxiliary equipment;
 - The specification and design of renewable and/or high efficiency energy generation equipment;
 - Installation of Building Energy Monitoring Systems (BEMS), communication of how they can be used to building occupiers and their use to diagnose energy use patterns in buildings;
 - Water efficient services design, including measured water demand per employee from completed projects;
 - Bioclimatic architecture and passive design to good thermal and optical comfort, natural air purification etc;
 - Assessment of building environmental performance using multi-criteria building assessment and certification schemes,
 - The specification, procurement and installation of low environmental impact construction materials. To include reference to EPDs in compliance with ISO 14025 or EN 15804.





- The use of holistic assessment tools in the design and specification of environmentally improved buildings including LCC and LCA. Comparative studies in compliance with ISO 14040/14044 or EN 15978
- Design, specification and monitoring to address daylighting and glare, thermal comfort and indoor air quality
- The development and implementation of staff travel plans, including infrastructure for low emission vehicles and bicycles

Project experience and Continuous Professional Development (CPD) of relevance to these areas shall be highlighted.

- Projects implemented by main construction contractor and specialist contractors with the following qualifications and relevant competencies and experience:
 - The installation, commissioning and (as relevant) ongoing operation/maintenance of renewable and/or high efficiency energy generation equipment;
 - The installation of Building Energy Monitoring Systems (BEMS) and communication of how they work to building managers;
 - The installation of water efficient services, including if available measured water demand per employee from completed projects;
 - Functioning passive design features to achieve low energy use and good thermal and optical comfort, etc; as evidenced by post-occupancy studies;
 - The procurement, installation and verification of low environmental impact construction materials. Supply chain management to ensure compliance with building assessment and certification systems and in order to support modelled resource efficiency strategies;
 - The successful implementation of demolition site waste management plans in order to minimise waste arisings. Selection and knowledge of off-site treatment options.
 - The installation of features to address daylighting and glare, thermal comfort and indoor air quality
- Projects which foresee, in the managing phase, an Energy Management System compliant to the standard ISO 50001 or equivalent.
- Projects which foresees improved specifications with respect to the following criteria:
 - Minimum Energy performance
 - Low or zero carbon energy sources
 - Recycled content
 - demolition
- Projects which include a Life Cycle Assessment (LCA) in accordance with ISO 14040/14044.





3.9 Funding calls for road lighting

CALL FOR TENDER

SUBJECT OF THE FUNDING CALL

The funding are intended for projects which involve either the new construction of low-impact street lighting systems or the requalification and upgrading of existing ones.

ELIGIBLE EXPENSES

- Purchase of luminaires and related control systems
- Final and executive planning of lighting systems, including the analysis of existing plants (in cases of requalification/upgrading).

ASSESSMENT CRITERIA

The projects will be funded only if they are developed in compliance with the "EU green public procurement criteria for road lighting and traffic signals" (SWD(2018) 494 final).

The new construction or requalification projects will be implemented by personnel with the following minimum experience and qualifications:

- at least three years' relevant experience in the installation of outdoor lighting systems,
- involvement in the installation of at least three different installation projects,
- a suitable professional qualification in electrical engineering and membership of a professional body relevant to the work they are undertaking (e.g. certified lighting technician). The list of relevant installed lighting systems with the relative 'scale of the project' should be reported.

The new construction or requalification projects shall foresee the use of lighting equipment with the following LED-based luminaire efficacy:

2020-21: 147 Lm/Watt2022-23: 165 Lm/Watt

The new construction or requalification projects shall foresee the compatibility of the lighting system with dimming controls and allow for programmed switch-off during periods of low night-time road use intensity.

The new construction or requalification projects shall foresee the use of fully functional dimming controls that are programmable to set at least two pre-set levels of dimming, down to at least 10 % of maximum light output.

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI





The new construction project shall foresee an Annual Energy Consumption Indicator (AECI), measured according to the Technical Annex I to the EU green public procurement criteria for road lighting and traffic signals, in compliance with the following:

 $AECIdesign \le PDIref x Em x FD x T x 0.001$

Where:

PDI is the power density indicator, in units of W.lx-1.m-2 Em is the maximum maintained illuminance (lx) FD is the dimming factor for any programmed dimming T is the operating time (h.yr-1) 0.001 is the number of kW in 1W

The new construction or requalification projects shall foresee the following:

- metering equipment and any ancillary equipment required in order to monitor electrical consumption at the lighting installation;
- minimum power factor for the LED luminaire to be installed shall be ≥0.95.
- all luminaire models shall be rated with a 0.0 % Ratio of Upward Light Output (RULO) and with a C3 flux code of ≥97 according to photometric data and according to EN 13032-1, EN 13032-2, EN 13032-4, Annex D of IEC 62722-1 or other relevant international standards. If it is necessary to use a boom angle, either to optimise the pole distribution or due to site constraints in pole positioning, the 0.0 % RULO shall be maintained even when the luminaire is tilted at the required angle.
- Correlated Colour Temperature (CCT) of light sources, in residential areas, in order to reduce the risk of human annoyance, shall be ≤3000K and a dimming or switch-off programme shall be implemented.
- In parks, gardens, areas considered by the procurer to be ecologically sensitive or any area within a 30km radius of an urban optical astronomy observatory or within a 100km radius of a major optical astronomy observatory, the **G-index** shall be ≥2.0.
- A dimming programme shall be implemented for parks and gardens that are open during night-time hours.
- A switch-off programme shall apply to any relevant closing hours for parks and gardens.
- A dimming and/or switch-off programme shall be implemented for any other ecologically sensitive areas or areas within the defined radii of relevant optical observatories.
- Any LED-based light sources shall have a warranty for a period of 7 years from the date of installation and a rated life at 25°C of:
 - L96 at 6 000 hours,
 - L70 at 100 000 hours (projected),
 - C0 at 3 000 hours or C10 at 6 000 hours,
 - C50 at 100 000 hours (projected).
- The specified control gear **failure rate** shall be lower than 0.1 % per 1 000 h and be covered by a 10-year warranty for control gear.

Author: Dana Vocino/Matteo Gordini, FONDAZIONE ECOSISTEMI





- Reparability is feasible and practical for a professional to access components (e.g. light source, lamp, LED module, driver) after the luminaire has been put into service. Components must be identifiable, accessible and removable without damaging the component or the luminaire. Replacement of components shall be able to be performed on site (i.e. at luminaire mounting height), without tools (i.e. plug and play) or with one of the following types of screwdriver: standard, Pozidriv, Phillips, Torx, Allen key or combination wrench.
- Minimum labelling of LED luminaires:
 - manufacturer's name, code, serial number and date of manufacture;
 - input power rating;
 - luminous flux at 25°C;
 - upward Light Ratio;
 - CIE flux codes;
 - correlated colour temperature (CCT);
 - G-index;
 - indication of the dimming control technology (if applicable).
 - The information should be included in the luminaire and, where possible, also in a part of the light pole that is accessible from ground level.

The new or renovated lighting systems installed shall be always provided with following **information**:

- disassembly instructions for luminaires;
- instructions on how to replace light sources (where applicable), and which lamps can be used in the luminaires without decreasing the energy efficiency;
- instructions on how to operate and maintain lighting controls;
- for daylight linked controls, instructions on how to recalibrate and adjust them; and
- for time switches, instructions on how to adjust the switch-off times, and advice on how best to do this to meet visual needs without

AWARD CRITERIA

Additional points will be awarded in the following cases:

- Projects drawn up by a design team with the following qualifications:
 - at least three years' experience in lighting design, dimensioning of electrical circuits and electrical distribution networks,
 - involvement in the design of at least three different outdoor lighting installations,
 - a certified level of competency in the use of lighting design software for power density indicator (PDI) and annual energy consumption indicator (AECI) calculations (e.g. European Lighting Expert certificate).
- Requalification projects drawn up based on a preliminary assessment of existing lighting infrastructure which will be assessed as follows:





- mapping of light points and assignment of unique light point ID numbers (if not already done);
- luminaire model, efficacy, ratio of upward light output and year of installation (where information is available);
- lamp technology, rated power, correlated colour temperature (CCT) and year of installation;
- presence/absence of dimming controls.
- New construction or requalification projects with an Enhanced luminaire efficacy higher than the one specified in the assessment criteria.
- New construction projects with an Annual Energy Consumption Indicator (AECI) higher than the one specified in the assessment criteria.
- New construction or requalification projects in which the planning choices were informed by the use of the Life Cycle Costing methodology.





3.10 Funding calls for investments for public use in recreational infrastructure, tourist information and small-scale tourist infrastructure (renovation, recovery, adaptation, expansion, modernization of real estate)

This funding tender model is informed by the insights gained by Lazio Region throughout the funding of public projects aimed at enhancing the regional rural areas within the context of the Rural Development Plan (<u>Bandi - PSR FEASR</u>, <u>Infrastrutture ricreative</u>, <u>informazione turistica e infrastrutture turistiche su piccola scala (lazioeuropa.it)</u>). The interventions are related in particular to the renovation of buildings for tourist accommodation and the creation or restoration of nature trails and cycle paths.

Within the GPP-STREAM project, the selection and award criteria identified by Lazio Region were integrated with a number of additional criteria for signage and pathways defined by Fondazione Ecosistemi as part of a project with Federparchi, the association of the Italian protected areas, aimed at defining the minimum environmental criteria for this product category.

This funding tender model can be a useful reference for tourist development projects in the area with a reduced environmental impact along the life cycle.

CALL FOR TENDER

SUBJECT OF THE FUNDING CALL

The funding call is addressed to public bodies, including managing authorities of protected areas, even if associated (e.g., Union of municipalities) and is aimed at building, improving and adapting the tourist / recreational infrastructures for the development of hospitality in the regional rural areas. In particular, the funds are aimed at the restructuring, adaptation or restoration of:

- tourist information points;
- thematic itineraries linked to the territory and the local economy, for educational and recreational purposes (culture, history, nature, food and wine);
- equipped routes (hiking, horse-riding, bird watching, trekking, mountain biking, orienteering, cross-country skiing, canoeing, rock climbing),
- cycle paths dedicated to cycle tourism;
- small sports facilities for public use;
- spaces intended for playrooms, multifunctional recreational spaces, areas equipped for children;
- accommodation facilities (hostels, refuges, rest areas for camping, areas equipped for campers, picnic areas, stopping points, exhibition points);
- visitor centres, museums, botanical gardens.

ELIGIBLE EXPENSES





- 1. Interventions aimed at renovating and redeveloping or extending (if permitted) the buildings or the existing artefacts for the permitted uses;
- 2. Interventions aimed at restoring or adapting the equipped routes (works for the reorganization of the roadway, dry stone walls, bridges, walkways, steps, small embankments consolidation);
- 3. Interventions aimed at the identification, restoration and adaptation of cycle paths dedicated to cycle tourism;
- 4. support or delimitation fences;
- 5. equipped huts for the observation of the fauna and related walkways and shields;
- 6. arrangement of the environmental context through naturalistic engineering works;
- 7. environmental arrangement of the areas and paths with interventions on the greenery (pruning of trees, planting of trees and shrubs, etc.);
- 8. purchase and installation of signs and posters;
- 9. purchase and installation of furniture for stopping points;
- 10. hardware and software for the computerization of information points and visitor centres.

ASSESSMENT CRITERIA

In general, all interventions have to support the forms of sustainable tourism linked to the territory and the local economy, as well as favour its enhancement and improvement trough the hospitality in rural areas.

The interventions must aim at the redevelopment and enhancement of real estate, favouring the reuse and regeneration of rural architecture and the existing building heritage in order to reduce land consumption.

The public beneficiaries must purpose and realize project in compliance with the obligation of green procurement established by national laws.

The projects can be funded only if they are compliant at least with the minimum environmental criteria specified below.

1. Renovation and requalification interventions on existing buildings

The interventions aimed at renovating or extending the existing buildings shall be compliant with the "EU GPP Criteria for Office Building Design, Construction and Management" (SWD(2016) 180 final), and in particular with the following criteria:

1.1 Minimum Energy performance

The calculated energy performance of an office building shall meet the following requirements:

- Renovations: Up to 100 kWh/m2
- New-build: Up to 60 kWh/m2

A dynamic thermal simulation model compliant with the ISO 13790 hourly method or equivalent shall be used to validate the heating and cooling performance. For major renovations input data reflecting surveyed construction details of the building shall be used.





1.2 Low or zero carbon energy sources

A minimum of 60% of the primary energy demand for the building shall be supplied/generated by localised renewable energy sources or high efficiency and cost-effective alternative systems installed within the curtilage of the building or which are shared with other buildings.

The remaining share of primary energy demand shall be purchased by providers which offer 100% renewable energy.

1.3 Heating systems, including Combined Heat and Power (CHP)

All heating systems, including those supplied by CHP units, that supply heat to either water or air based heating distribution systems for an office building shall meet the relevant Comprehensive GPP criteria that demonstrate the efficiency of each technology:

- For water-based heaters, which covers boilers and heat pumps up to 400 kW heat output and for combined heat and power units with an electricity generating capacity of less than or equal to 50 kWe: technical specifications 3.1 and 3.2 shall be met. The criteria can be accessed here: http://ec.europa.eu/environment/gpp/pdf/criteria/water_based/heaters_en.pdf
- For combined heat and power, which covers prime movers with an electricity generating capacity of greater than 50 kWe: technical specification 3.2.1 which specifies a minimum 75% annual overall efficiency and 3.2.2 which specifies requirements for 'high efficiency' cogeneration shall be met. The criteria can be accessed here:

http://ec.europa.eu/environment/gpp/pdf/chp_GPP_product_sheet.pdf.

1.4 Recyclable waste storage

Dedicated storage space shall be provided within the building, or within the curtilage of the building, to facilitate the segregation of recyclable materials and end-of-life products by occupiers.

1.5 Water saving installations

All sanitary and kitchen water facilities shall be equipped with water efficient fittings that are in compliance with the criteria for sanitary tapware and toilets and flushing urinals:.

EU GPP criteria for sanitary tapware: http://ec.europa.eu/environment/gpp/pdf/criteria/sanitary/EN.pdf

EU GPP criteria for toilets and urinals: http://ec.europa.eu/environment/gpp/pdf/criteria/toilets/criteria Toilets en.pdf

1.6 Daylighting and glare control

Dynamic modelling shall be used to demonstrate that during a year the useable office space achieves for a minimum of 55% of the occupied hours:

- Spatial Daylight Autonomy of 300 lux on the working plane, and;
- A Daylight Glare Probability value of 40% for locations that exceed 1000 lux (without solar control measures installed).

Both shall be measured at a working plane height which shall be defined by the contracting authority. DGP shall be measured for views of the windows at eye level.





1.7 Recycled content

The project achieves greater than or equal to 30% by value of recycled content, re-used content and/or by-products11 for the sum of the main building elements.

1.8 Demolition

A minimum of 80% by weight of the non-hazardous waste generated during demolition and stripout works, and excluding excavations and backfilling, shall be prepared for re-use, recycling.

1.9 Sourcing of legal timber

All timber or timber products to be supplied under the contract must be legally harvested in accordance with Regulation (EU) 995/2010 (the 'EU Timber Regulation ').

1.10 Site waste management

A site waste management plan shall be prepared prior to the commencement of work on-site. The plan shall identify opportunities for waste prevention and shall establish systems for the separate collection of materials on-site for re-use, recycling and other forms of recovery.

1.11 Emissions limits

The emission of the following materials used within the project shall not exceed the limits specified in the table below:

- Ceiling tiles
- Paints and varnishes
- Textile floor and wall coverings
- Laminate and flexible floor coverings
- Wooden floor coverings

Product	Emissions limits (µg/m³)				
	3 days	28 days			
TVOCs	10,000	<1,000			
SVOCs	-	100			
Formaldehyde	-	<40			
Carcinogens - trichloroethylene, - benzene - DEHP - DBP	<10 sum total of the four substances	<1 for each substance			

2. Equipped routes and cycle paths

The interventions aimed at restoring or adapting the equipped routes (works for the reorganization of the roadway, dry stone walls, bridges, walkways, steps, small embankments consolidation) must comply with the following minimum environmental criteria.





2.1 Permeability and reduction of the "heat island" effect

The paved surfaces for pedestrian or cycle use (e.g. pedestrian paths, sidewalks, squares, courtyards, cycle paths, etc.) must be provided with permeable flooring, i.e. made with drainage materials, and with an SRI index (Solar Reflectance Index) of at least 29.

2.2 Cold type flooring

The project must include "cold" type flooring in porous or draining self-locking elements, or the following types of flooring: reinforced lawn, brick, light stone, cobblestone, gravel, wood, limestone, clear natural non-bituminous binders, etc. Natural stones must be recycled.

2.3 Disassembly

At least 70% by weight of all the products and components used in the construction of the routes must be suitable for selective demolition at the end of their life and be reusable or recyclable. The project includes a plan for the disassembly and selective demolition of the work at the end of its life that allows the reuse or recycling of the materials, components and prefabricated elements used.

2.4 Drainage

The design of the intervention must favor the drainage of run-off water (through the use of permeable materials or drainage systems such as trenches or filter channels, ponds or wetlands), so that to avoid the overloading of the drainage and sewage system.

2.5 Content of recovered or recycled material

The project must foresee the reuse of materials or the use of materials containing recovered or recycled material, or even by-products whose total value (referred to the finished product) is specified below:

- for pedestrian and bicycle paths at least 70% by weight of the materials used

3. Fences and equipped sheds

The projects must foresee the construction of fences and wooden sheds.

The wood used must comply with the characteristics indicated in paragraph 5.1 Vertical wooden signs.

4. Naturalistic engineering works and interventions on the greenery

4.1 Design team

The project must be developed by a multidisciplinary team of professionals, with adequate skills in the environmental, landscape, naturalistic, forestry, engineering, geological fields and the coordination of the group shall be given to professionals who guarantee a complete and





integrated viewpoint aimed at identifying the project cultural value to enhance and concretely improve the landscape and the environment.

4.2 Plants

The trees and shrubs planting interventions and the naturalistic engineering works must employ the following vegetation material:

- native
- 80% organic: grown according to the requirements laid down in Regulation (EC) No 834/2007, or equivalent; and/or
- 20% integrated pest management (IPM): grown according to IPM principles as defined by the UN Food and Agricultural Organisation (FAO) IPM programme or EU Directive 2009/128/EC.

4.3 Warranty on the rooting of the vegetation material

The purchase of the vegetation material must be guaranteed for its rooting on the 100% of healthy and well-developed planted plants. The warranty shall be provided up to the final testing of the works, i.e., up to about 5 years after the planting of the vegetation material.

4.4 Respect for the fauna

The project must foresee an implementation plan of the interventions which takes into account and causes the least disturbance and damage to the existing fauna in the area (e.g., by scheduling interventions in the periods of least disturbance for the fauna).

4.5 Plant containers and packaging

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):

- 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.

4.6 Waste management

Waste produced during works must be collected separately and managed as follows:

 All organic waste (dry leaves, pruning, grass) must be recovered through its composting "in situ" to be used as mulch in suitable areas for the reduction of the phenomenon of





evaporation from the ground or to be sent to authorized composting plants, nearby the site of intervention.

- 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 and transported by licenced waste operators to a recycling centre approved by the local authorities.

4.7 Use of machinery or equipment with a reduced environmental impact

The projects must foresee the use of machinery or equipment which are compliant with "EU green public procurement criteria for public space maintenance" (SWD(2019) 404 final).

5. Signage and billboards

5.1 Vertical wooden signs

All types of boards (signpost, location, "respect the nature and follow the path", thematic path, itineraries, etc.) made of wood must:

- come from forests managed in a sustainable / responsible way (certified FSC or PEFC) or
- be made of recycled wood certified FSC or PEFC recycled.

All types of boards (signpost, location, "respect the nature and follow the path", thematic path, itineraries, etc.) made of recycled wood must not contain dangerous substances which exceed the limits specified in the table below:

Element/compound	mg/kg of recycled wooden
	board
Arsenic	25
Cadmium	50
Chromium	25
Copper	40
Lead	90
Mercury	25
Chlorine	1000
Fluorine	100
Pentachlorophenol	5
Creosote	0.5





In addition, the formaldehyde emissions of the finished product shall be lower than (Ecolabel (2016/1332) criteria for furniture):

- 50 % of the threshold value allowing them to be classified as E1
- 65 % of the E1 threshold value, in the case of Medium Density Fibreboard (MDF) panels
- the limits set out in the CARB Phase II or the Japanese F-3 star or F-4 star standards

5.2 Vertical signs in phenolic multilayer

All types of boards made of phenolic multilayer must comply at least with the following criterion (included in the Ecolabel (2016/1332) criteria for furniture):

- the free formaldehyde content in the formulation (resins, adhesives and hardeners) used for the production of formaldehyde-based shall not exceed 0,2 % (w/w) as determined by ISO 11402 or equivalent methodology.

In addition, the formaldehyde emissions of the finished product shall be lower than (Ecolabel (2016/1332) criteria for furniture):

- 50 % of the threshold value allowing them to be classified as E1
- 65 % of the E1 threshold value, in the case of Medium Density Fibreboard (MDF) panels
- the limits set out in the CARB Phase II or the Japanese F-3 star or F-4 star standards

5.3 Vertical aluminum signs

The surface treatments (protective) of the aluminum and in particular the painting, anodic oxidation,

other galvanic treatments, must comply with the best available techniques indicated by the IPPC (Integrated Prevention and Reduction of Pollution) in the "Guidelines for the Best Available Techniques for Metal Surface Treatments" and in particular for:

- the extraction of fumes from oxidation: all tanks are equipped with extraction systems for the abatement of polluting emissions;
- purification of washing waters: the waters used for washing the anodizing tanks are subjected to careful filtering to eliminate any aluminum residues.

5.4 Vertical signs in expanded and semi-expanded PVC (forex)

All types of forex boards (signpost, location, "respect the nature and follow the path", thematic path, itineraries, etc.) must comply at least with the following Ecolabel criteria (2016/1332) for furniture (similar products):

- criterion 4.2 a) regarding "Heavy metals in plastic additives".

5.5 Paints for horizontal signs





White and red paints for horizontal signs must comply at least with the following Ecolabel criteria (2014/312) for outdoor paints:

- criterion 2. Titanium dioxide pigments
- criterion 4. Volatile and semi-volatile organic compounds
- criterion 5. Limitation of dangerous substances and mixtures

6. Furniture for stopping points

The outdoor furniture shall comply with at least the following criteria:

6.1 Wooden furniture products

The wooden furniture components/materials shall be partly or completely made of recycled wood, "FSC® Recycled"/"FSC® mixed"/"PEFC Recycled™" certified or the timber used in furniture to be supplied under the contract must be legally harvested in accordance with Regulation (EU) 995/2010 (the 'EU Timber Regulation') and carry a "FSC®"/ "PEFC™" certification or equivalent.

6.2 Recycled content in furniture products/semi-finished components made of plastic, rubber, plastic/rubber or plastic/wood mixtures

At least 50% by weight of the furniture products/semi-finished components made of plastic, rubber, plastic/rubber or plastic/wood mixtures (if any) shall be made of recycled material.

6.3 Durability

The furniture product shall comply with the requirements set out in the latest versions of the relevant EN standards that may relate to the durability, dimensional requirements, safety and strength of the product.

6.4 Disassemblability, substitutability and end-of-life

The furniture product shall be designed to enable a non-destructive disassembly for the purpose of replacing component parts/material or reusing/recycling them at the end of the life cycle of the product.

6.5 Coating mixture restrictions

(This criteria applies only for furniture products intended for direct contact with persons)

The coating mixtures used by the furniture manufacturer to coat any components of the furniture product (e.g., primers, waxes, plastic films) are allowed only for the following functional reasons:

 Ensuring the durability of the wood, whenever the timber is of a type that, if naturally used, would not resist to biological attacks or natural events;





- Avoiding the oxidation of the metal components of the furniture product;
- Meeting necessary aesthetics requirements.

Whenever used, they shall not contain:

- any substances classified according to Regulation (EC) No 1272/2008 of the European Parliament and of the Council as:
 - o Category 1A, 1B or 2 carcinogenic, mutagenic or toxic to reproduction.
 - Acutely Toxic by oral, dermal or inhalation pathways (categories 1, 2 or 3) or to the aquatic environment (category 1, 2, 3 or 4)
 - Category 1 or 2 for specific target organ toxicity.
- The substances that meet the criteria in art. 57 and 59 of the REACH Regulation
- Any additives based cadmium, lead, chromium VI, mercury, arsenic or selenium.

6.6 Paint and varnishes restrictions

The outdoor paint and varnishes used for the surface coatings shall carry the EU Ecolabel, as established in Commission Decision 2014/312/EU, or shall comply at least with the following EU Ecolabel criteria included in the attachment of the same Decision:

- Criterion 3. Efficiency in use
- Criterion 4. Content of Volatile and Semi-volatile Organic Compounds (VOCs, SVOCs)
- Criterion 5. Restriction of hazardous substances and mixtures

6.7 Restrictions of hazardous substances in furniture products/semi-finished components made of plastic, rubber, plastic/rubber or plastic/wood mixtures

(This criteria applies only for furniture products intended for direct contact with persons)

The furniture products/semi-finished components made of plastic, rubber, plastic/rubber or plastic/wood mixtures shall not contain:

- The substances that meet the criteria in art. 57 and 59 of the REACH Regulation
- Any pigments or additives (including flame retardants) containing lead, cadmium, chromium VI, mercury, low molecular weight phthalates, polybrominated biphenyls, polybrominated diphenyl ethers, as well as boron, arsenic, tin, copper compounds.

The flame retardants shall be chemically bound to the matrix.

7. Hardware e software

The hardware purchased shall comply with at least the award criteria specified below and included in the "EU GPP Criteria for Computers and Monitors" (SWD(2016) 346 final).





AWARD CRITERIA

Additional points are awarded to:

- 1. Projects which foresees improved specifications for the building interventions with respect to the following criteria:
- Minimum Energy performance
- Low or zero carbon energy sources
- Recycled content
- demolition
- 2. Projects that also include educational activities for schools in the territory. These activities may include projects to be carried out in the schools, institutional venues, association venues or in the areas covered by the contract.
- 3. Projects that integrate social criteria, such as the employment of a minimum percentage of personnel belonging to the categories of disadvantaged workers, as defined by the relevant national rules (unemployed adults or young people, people belonging to an ethnic minority of a Member State, staff from reception centres for asylum seekers, etc.).





ANNEXES

ANNEX 1 – Resource efficiency: matrix of interrelation between sectors and resources, and EU policy initiatives

Resource/	Fossil fuels	Materials and	Water	Air	Land	Soils	Ecosystems:	Marine	Waste
sector		minerals					Biodiversity	resources	
Circular				Reduce, reuse,	, recycle, substitute,	maintein, valorize			
Economy									
Energy	Reduce fossil	-Ensure security	-Use efficiently	-Reduce	-Reduce land	-Prevent soil	-Reduce	-Use as a	-Ensure energy
	fuels use via:	of supply of	as renewable	pollution	take for biofuels;	damage by SO2	acidification via	renewable	recovery of non-
	-increased	critical raw	energy source;	with harmful	-Optimise energy	and NOx	reduced fossil	energy source;	recyclable
	energy	materials (for	-Reduce	substances,	infrastructure.	emissions;	fuels use;	-Ensure	waste;
	efficiency (20%	renewables and	cooling needs	in particular		-Mitigate soil	-Avoid ecosystem	sustainable	-Reduce energy
	by 2020);	electrification)	of power	via reduced		impacts of new	damage from	use of algae for	intensity of
		-Reduce energy	plants;	use of fossil		infrastructure/	energy carriers	biofuels;	waste
	-substituting	intensity of	-Reduce energy	fuels;		energy	extraction/	-Prevent risks	treatment;
	forrenewable	materials	intensity of	-20%		solutions;	exploitation.	of oil spills &	- Increase use of
	resources (20%	extraction,	water	reduction of		-Preserve		disasters;	biodegradable
	by 2020, and	production &	treatment;	GHG		peatlands.		- Reduce	waste for
	10% in	consumption.	-Reduce use of	emissions by				acidification	bioenergy and
	transport).		hot water via	2020 (30% if				resulting from	bioproducts
			better	the				GHG	
			appliances &	conditions				emissions.	
			water	are right);					
			infrastructure	- 80-95% GHG					
				emission					
				reduction by					
				2050					



European Union | European Regional Development Fund



Food	-Reduce fossil	-Optimise use of	-Optimize	-Reduce GHG	-Optimise land	- Reverse soil	-Restore and	-Restore fish	-Reduce food
	fuels use via-	minerals &	water use in	emissions;	use to reconcile	loss;	preserve	stocks and	waste;
	improved	materials (eg	agriculture;	-Reduce SO2	with other uses;	-Restore	ecosystems to	eliminate by-	-Use recyclable/
	energy	phosphorous);	-Prevent	& NOx	-Use taken fertile	organic matter	ensure	catch and	biodegradable
	efficiency of	-Improve	flooding &	emissions.	land for	content in soils;	pollination, water	discards;	packaging;
	food	packaging for	droughts, i.e.		agriculture;	-Prevent soil	retention, etc.;	-Eliminate	-develop
	production;	better	by fighting		-Reduce land	damage by SO2	-Avoid	destructive	composting of
	-Avoid adverse	preservation &	climate		take (e.g. via	and NOx	eutrophication	fishing	biowaste.
	impacts from	recyclability.	change;		optimal animal	emissions;	from fertilizers	techniques;	
	the substitution		-Ensure clean		protein intake).	-Avoid	and reduce the	-Develop	
	of fossil fuels		water			pollution from	use of pesticides;	sustainable	
	with biofuels.		availability for			fertilizers and	- Increase	aquaculture;	
			quality			pesticides.	biodiversity	-Reduce	
			products;				through good	pollution of	
			-Avoid				farming	coastal areas	
			pollution from				practices	from fertilizers	
			fertilizers and					- Avoid marine	
			pesticides.					litter.	
Buildings	-Reduce fossil	-Optimise	-Improve water	-Reduce GHG	-Avoid additional	-Avoid urban	-Ensure sufficient	-Reduce	-Recycle
	fuels use via	material use;	efficiency of	emissions	land take (e.g. for	sprawl on	and connected	acidification	construction
	better energy	-Use sustainable	buildings and	from	urban sprawl);	fertile soil;	green spaces as	resulting from	and demolition
	efficiency and	materials.	appliances	buildings;	-Remediate	- Minimize soil	part of green	GHG	waste (70% till
	renewable			-Improve	contaminated	sealing	infrastructures.	emissions.	2020).
	energy use in			indoor air	sites.				
	buildings;			quality;					
	-Build zero								
	energy								
	buildings and								
	increase the								
	renovation rate								



GPP-STREAM Interreg Europe

European Union | European Regional Development Fund

	of existing								
	buildings.								
Mobility	-Reduce	- Increase	-Use the	-Reduce	-Minimise	- Minimise	-Minimise	-Use the	-Ensure efficient
	dependency on	resource	potential of	pollution	impacts of	impacts of	impacts of land	potential of	reuse and
	fossil fuels by:	efficiency of	water transport	from	transport	transport	sealing,	maritime	recycling of
	improved fuel	infrastructures;	to reduce	transport:	infrastructure on	infrastructure	fragmentation,	transport to	end-of life
	efficiency,	-Optimise	emissions;	60% less GHG	land	on land sealing.	pollution;	reduce	vehicles (85-
	renewable	logistics of	-Reduce	by 2050; less	fragmentation.		-Avoid invasive	emissions;	95% by 2015)
	energy use,	materials	pollution from	ground-level			alien species	-Avoid marine	and ships.
	phasing out	transportation;	water	ozone,			spread.	litter,	
	conventionally-	-Ensure security	transport.	particulate				including from	
	fuelled cars in	of supply of		matter, NO2;				ships	
	cities by 2050,	critical materials		less sulphur					
	improved	(needed for		content in					
	multimodal	batteries).		marine fuels.					
	logistics, better								
	transport								
	networks; more								
	efficient								
	vehicles.								
EU policy	State Aid	-Tackling the	-Blueprint on	-Low Carbon	-Communication	-Guidelines on	-2020 EU	- Reform of	-Review of
initiatives	framework	challenges in	water (2012)	economy	on land use	best practice to	biodiversity	Common	prevention,
	(2013);	commodity	-Innovation	2050	(2014)	limit, mitigate	strategy (2011)	Maritime and	reuse, recycling
	Fuel quality	markets and on	partnership on	roadmap	-Communication	or compensate	-Communication	fisheries policy	and landfill of
	directive; etc.	raw materials	water	(2011)	on LULUCF in the	soil sealing	on Green	(2011)[AGRI]	waste targets
		(2011)	efficiency	-Revision of	EU climate		Infrastructure	-Climate	(2014)
		-Proposal for an	-Revision of the	the	change		and Restoration	Change	
		Innovation	EQS Directive	legislation on			(2012)	adaptation in	



European Union | European Regional Development Fund



	Partnership on	(priority	monitoring	commitments	-No Net Loss	the coast and	
	raw materials	substances)	and reporting	(2011) [Initiative (2015)	the sea (2012)	
		(2011)	of GHG			-Blue Growth	
		-Revision of the	-Review of EU			(2013)	
		Ground Water	air quality			-Integrated	
		Directive (2012)	policy (2013)			Coastal Zone	
						Management	
						(2012)	
						-Maritime	
						Spatial	
						Planning	
						(2012)	