

1. INTRODUCTION

Every year, over 250,000 public bodies and agencies spend approximately 14% of the EU Gross Domestic Product (GDP) on works, supplies and services. Therefore, public administration constitutes a key strategic market, able to contribute towards the change to a closed circle economy through its purchasing preferences.

More specifically, “Circular public procurement can be defined as the process by which public authorities purchase works, goods or services that seek to contribute to closed energy and material loops within supply chains, whilst minimising, and in the best case avoiding, negative environmental impacts and waste creation across their whole life-cycle” (EU Toolkit, 2019). Public procurement is seen as a means towards an environmentally sustainable economic and social activity.

This toolkit intends to integrate the European Union general rules and principles on public procurement with those linked to waste management. It focusses, both on public procurement procedures on waste management and on green public procurement to address waste prevention.

As it will be shown, a green public procurement (GPP) appropriate implementation has to define what needs to be purchased on the basis of an informed choice, as well as it has to make a skilled use of the technical specifications in the calls for tenders. Indeed, the contract award criteria, technical specifications and the conditions for performance of contracts will be the guidelines to define the service, work or supply to be acquired.

1.1. DEFINITION OF THE SUBJECT-MATTER OF THE CONTRACT

The contracting authority should be aware of its obligations and its ability to influence through public procurement. In order to ensure a GPP, it needs to consider how best integrate sustainable criteria with its needs of a service, work or supply.

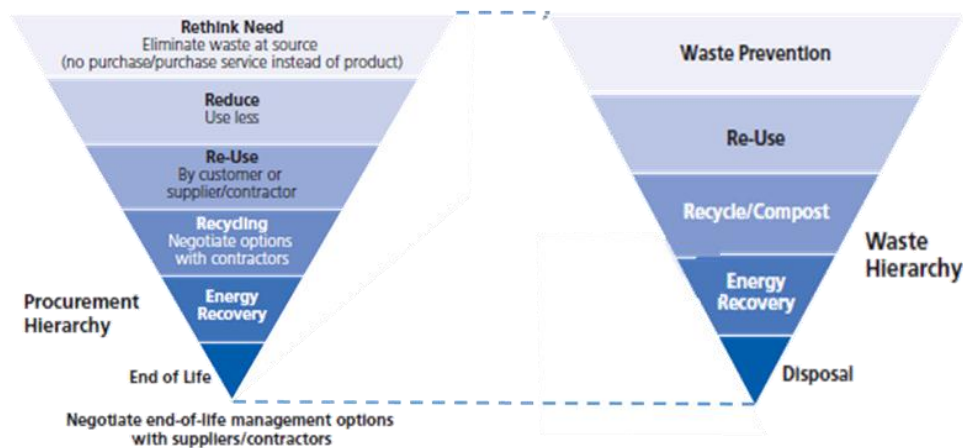
To define the subject-matter of a public contract properly is important because the contract award criteria have to be linked to it, according to the Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement.¹ Therefore, in addition to the real needs and the subject-matter nature itself, its main environmental impacts should be identified.

“These preparatory early stages of the procurement cycle provide the opportunity to challenge the need and adopt different approaches and more circular business models by asking questions, for example, do you need vehicles or mobility? Circular procurement requires an understanding of not just what products are made from and where they have come from, but also how they will be used and what happens to them after their first life” (EU Toolkit, 2019).

To define the subject-matter, attention should be paid to: avoidance (reducing consumption); reuse (considering options for purchasing reused or remanufactured items); encouraging markets for secondary materials (e.g. by specifying recycled content in new products); encouraging innovation for more circular products (and services); optimising the lifetime of products through repair and maintenance or servicing contracts and sell-on options and considering end-of-life options that help close product e.g. through take-back (EU Toolkit, 2019).

Figure 1. Circular public procurement. Hierarchies

¹ Art. 67 Public Procurement Directive 2014/24/EU.



Source: EU Toolkit, 2019.

An accurate definition of the subject-matter has to take into account the opinion of stakeholders and suppliers. For doing so, the Public Procurement Directive 2014/24/EU² sets out the preliminary market consultations. They allow civil servants and public workers to know how a service, work or supply they are planning could be performed by the potential contractors. It helps to evaluate if the procurement plans are feasible and their desirable scope and features. The consultation should in all cases comply with the principles of non-discrimination and transparency, and avoid distorting competition.

This system is useful to inform economic operators of the procurement plans and requirements for waste management and circularity and makes it possible for the contracting authority to understand what the market can provide.

Professional staff involved in the procurement procedure, including technical and market experts, should be committed to the environmental purchase and to its social performance. By doing so, contract award criteria aligned with GPP would be set up, to materialise the political will reflected in the regulations (Pernas, 2022).

² Art. 40, Public Procurement Directive 2014/24/EU.

2. GPP GUIDELINES

This section contains a review of the guidelines included in main European Union regulations that support public authorities to greening the supplies, works and services they need to contract. The fundamental rules and principles of public procurement are reviewed, as well as the several procedural stages in which environmental requirements may be placed and tested, together with a couple of brief comments on essential issues linked to waste management.

2.1. Legal framework

The Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement intends, among others, to enable public procurers to make better use of public procurement in support of common societal goals. It also clarifies how the contracting authorities can contribute to the protection of the environment and the promotion of sustainable development.

Environmental criteria are linked to all the procurement procedure and go beyond environmental, social and labour law compliance³. Thus, special conditions relating to the performance of a contract may include economic, innovation-related, environmental, social or employment-related considerations.⁴

The Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts is also a relevant regulation, particularly for waste collection and management concession contracts. It also provides procedural guarantees and general principles⁵ for public procurement related to environmental obligations and to the incorporation of technical specifications on environmental criteria.

These mandates in specific public procurement rules are strengthened in the waste regulation. In particular, according to the Directive (EU) 2018/851 of the European Parliament and of the Council, of 30 May 2018, amending Directive 2008/98/EC on waste,⁶ sustainable public procurement to encourage better waste management and the use of recycled products and materials are economic instruments to provide incentives for the application of the waste hierarchy. It also mandates Member States to use procurement criteria to promote re-use and recycling,⁷ and integrate them when drafting their waste prevention programmes.⁸

In addition, the SDG (Sustainable Development Goals) n° 12, included in the 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, establishes the need to ensure sustainable production and consumption patterns and includes, among its targets, the promotion of public procurement practices that are sustainable, in accordance with national policies and priorities.

³ Art. 18 Public Procurement Directive 2014/24/EU.

⁴ Art. 70 Public Procurement Directive 2014/24/EU.

⁵ Art. 30 Concession Contracts Directive 2014/23/EU.

⁶ Annex Waste amending Directive (EU) 2018/851, new Annex IVA Waste Directive 2008/98/EC.

⁷ Art. 1 (12) Waste amending Directive (EU) 2018/851, art. 11 Waste Directive 2008/98/EC.

⁸ Art. 29 Waste Directive 2008/98/EC.

2.2. Fundamental rules and principles of public procurement

The general principles governing public procurement remain the same for GPP, such as transparency and equal treatment of economic operators, ensure quality, continuity, accessibility, affordability, innovation, availability and comprehensiveness of the services, the respect of the specific needs of different categories of users or the involvement and empowerment of users.⁹ A best-quality ratio choice is also a key element of public procurement.

When awarding green public contracts, contracting authorities have to apply the national procedures (i.e. open, restricted or framework agreements). There are not specific rules in this field.

2.3. Contract award criteria, technical specifications and conditions for performance of contracts

Contract award criteria, technical specifications and conditions for performance of contracts are the tools, within a public procurement procedure, to shape the supply, work or service' full nature and communicate it to the economic operators. Therefore, the three of them could play a key role in fostering sustainable economy.

The Public Procurement Directive 2014/24/EU sets out the criteria for the selection of the contractor. Best price-quality offer has to be identified on the basis of economic and qualitative criteria, thought a cost-effectiveness approach.

Award criteria¹⁰ are those that will enable the selection of the best possible deal. Such criteria include, among others, environmental aspects, those that make possible for the contracting authority to create, through GPP, greater incentives for sustainable business. For instance, in the case of a waste collection contract public procedure, environmental criteria could be an adequate specific training for the contractor' workers or the use of energy-efficient vehicles.

On the other hand, conditions of performance of contracts¹¹ are those that will allow contracting authorities helping to attain environmental goals. Always linked to the subject-matter, they are mandatory and may include environmental considerations.

In the case of tender for concessions, technical requirements are those that define the characteristics required of the works or services that are the subject-matter of the concession. They may include environmental and climate performance conditions,¹² and be also referred to the specific process of production or provision of the requested works or services.

For instance, in the case of a waste collection contract public procedure, environmental conditions could be the use of smart waste containers, that may include "pay-as-you-throw" or "know as you throw" systems specifications, and the use of related applications.

Examples of best practices are provided in the last section.

2.4. Waste management specificities

Beyond the Public Procurement and Concession Contracts Directives, other European Union regulations increase the possibilities for contracting authorities to draft green public procurement

⁹ Art. 76 Public Procurement Directive 2014/24/EU.

¹⁰ Art. 67 Public Procurement Directive 2014/24/EU and art. 41 Concession Contracts Directive 2014/23/EU.

¹¹ Art. 70 Public Procurement Directive 2014/24/EU.

¹² Art. 36 Concession Contracts Directive 2014/23/EU.

documents focused on waste management. This is the case, namely, of the European Ecolabels, the reduction of the impact of certain plastic products on the environment and the reserved contracts.

In addition, due attention must be paid by contracting authorities on how public contracts and concessions should be adapted to the evolution of separate collection schemes. Both, the new ones and those already awarded.

2.4.1. European Ecolabel

The establishment and the application of the voluntary EU Ecolabel scheme is regulated by the Regulation (EC) No 66/2010 of the European parliament and of the Council, of 25 November 2009. This technical regulation may help Member States to define guidelines when establishing their national Green Public Procurement Action Plans and considering the setting of targets for public purchasing of environmentally friendly products. Indeed, it is an efficient way of ensuring proper green public procurement procedures. The criteria and conditions are linked to technical specifications related to the product's whole lifecycle. It is a legally secure and easy system to request environmental specifications (Pernas, 2022).

Furthermore, the labels are recognized as a means of proof that the works, services or supplies correspond to the required characteristics by the Public Procurement and Concessions Contracts Directives.¹³

2.4.2. Reduction of the impact of certain plastic products on the environment

The Directive (EU) 2019/904 of the European Parliament and of the Council, of 5 June 2019, on the reduction of the impact of certain plastic products on the environment clearly states that "The fight against litter is a shared effort between competent authorities, producers and consumers. Public authorities should lead by example".¹⁴

Public procurements appear to be an effective measure to achieve an ambitious and sustained reduction in the consumption of the single-use plastic products.¹⁵

2.4.3. Reserved contracts

Municipal collection and management of second-hand clothes and textile waste, as well as other old objects, might have a reserved quota within GPP for economic operators whose main aim is the social and professional integration of disabled or disadvantaged persons.¹⁶

Reserved contracts may contribute to the objectives of preparation for re-use, further to the raise in repair and the stimulation of the second-hand market. It may also support projects aimed at social reintegration as well as to return to the market rejected material (Pernas, 2022).

¹³ Art. 43 Public Procurement Directive 2014/24/EU and 36 Concession Contracts Directive 2014/23/EU.

¹⁴ Whereas (35) Plastic Directive 2019/904.

¹⁵ Art.4 Plastic Directive 2019/904

¹⁶ Art. 20 Public Procurement Directive 2014/24/EU and art. 24 Concession Contracts Directive 2014/23/EU.

2.5. Means of proof

All the requirements set-up on the procurement documents (award criteria, technical specifications or performance conditions) have to be supported with tools (for example, test reports or certifications) to properly follow and verify the successful conclusion of the work, service or supply.

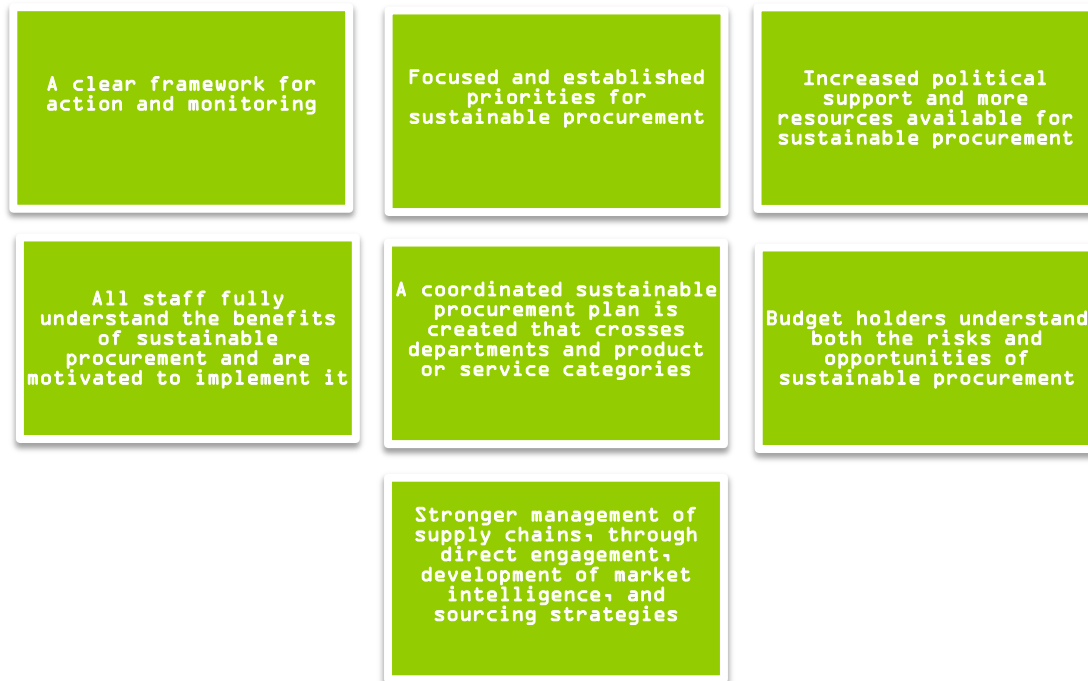
Contracting authorities should understand that environmental means of proof required to economic operators¹⁷ may be complex and know-how based, thus, specialist technical skills may be required.

¹⁷ Art. 44 Public Procurement Directive 2014/24/EU.

3. A GPP POLICY

An efficient GPP requires an appropriate plan and strategy. Indeed, a clear cut and written policy provides a useful basis on which to build a coherent, well-co-ordinated, structured GPP approach. A policy gives backing to those driving the process within an organisation (Toolkit EU, 2019).

Figure 2. The benefits of a GPP policy



Font: EU ToolKit, 2019

Figure 3. Sustainable and innovation procurement policy examples

Oslo – Responsible public procurement is one of the six sub-goals of the Procurement Strategy.

Barcelona – GPP initiatives are detailed in the +Sustainable City Council Programme, which is part of Barcelona's Agenda 21.

Copenhagen – The CPH 2025 Climate Plan recognises procurement as having a role to play in the transformation to a carbon neutral city.

Budapest – The Budapest Environmental Program (2017-2021) includes the target for 100% GPP processes, as well as other sector specific targets.

Source: EU ToolKit, 2019

3.1. APPLICATION OF GPP

This table offers a selection of cases with replicable GPP examples focused on waste prevention or waste management. It can be noticed how public bodies take advantage from GPP guidelines to influence the shift to more sustainable production and provision of services.

Table 1. Examples of Green Public Procurement

PUBLIC BODY	SUBJECT-MATTER	TYPE OF CONTRACT	PREPARATION	AWARD CRITERIA & TECHNICAL SPECIFICATIONS & CONDITIONS FOR PERFORMANCE	RESULT ACHIEVED
City of Luxembourg.	Sustainable cleaning products. The provision of cleaning products and services.	Open procedure.	The technical specification was developed at an early stage in conjunction with the Luxembourg Environmental Protection Office. Analysis found that only 15% of previously used products were free of harmful substances.	The technical specifications for the new tender included a list of substances banned from products, and award criteria to reduce the use of others.	The market adjusted quickly and four companies submitted bids. Using this approach, the city was able to create a healthier environment for both its employees and citizens.
Bulgarian Ministry of the Environment and Water.	Recycled material supply. 100% recycled fibre when ordering paper for use in its office.	1st. Open procedure. 2n. Framework agreement.	A pre-procurement market analysis revealed that a switch to more environmentally-friendly paper could be done without increasing the price.	100% recycled fibre when ordering paper for use in its office.	Following the Ministry's successful procurement, the Bulgarian Central Purchasing Body also concluded a framework agreement for the supply of 100% recycled paper to a number of public authorities.
City of Miskolc. Hungary.	Less toxic chemicals supply. Calcium magnesium acetate to defrost roads supply contract.		The city sought to purchase greener alternatives for a number of its requirements. For example, for winter defrosting of roads the city switched from sodium chloride to calcium magnesium acetate (CMA), a less corrosive substance which does not increase sodium levels in drinking water.	Defrosting of road service should be made with calcium magnesium acetate.	
City of Kolding, Denmark.	Ecolabel. Label criteria incorporated into procurements whenever possible.			The applicable criteria from the eco-labels are inserted directly into technical specifications and/or award criteria. It is stated that a copy of the eco-label certificate is seen as full verification that the criteria are met, but also that alternative documentation will be accepted.	Incorporated with considerable success. Tenders using eco-label criteria include cleaning products, copy paper, uniforms, laundry services (for the detergent used), printing services (for the paper used), tissue paper, and fleet management (for the lubricants used).

Gipuzkoa Provincial Council. Basque Country. Spain.	Sustainable building maintenance. Maintenance contract for two buildings. Environmental sustainability of the services.	Open procedure.		The selection criteria included a requirement for bidders to designate an engineer or technical-grade architect responsible for coordinating the maintenance services. This person has the appropriate training, knowledge and experience in environmental matters associated with the maintenance, including energy efficiency and waste management.	
City of Ghent. Belgium.	Sustainable paper and office supply. Paper and office supply contract.	Four-year framework contract.		All products in the tender included green criteria and technical specifications. Contract performance clauses included a requirement for a reduction in deliveries by 85% (from daily to once or twice per month).	Extra points were also awarded for greener solutions, which resulted in sustainable packaging options offered in tenders The tender achieved lower CO2 emissions from the decrease in delivery frequency and new packaging options.
Herning Municipality. Denmark.	Uniforms purchase. New uniforms purchase for the technical operations department.		The municipality sought to procure new uniforms for its technical operations department, with the aim of extending their lifespan and more efficient use.	It developed technical specifications and contract performance clauses related to maintenance, repair and recycling.	By leasing uniforms through a service model, and including reuse and recycling contract provisions, it was possible to extend the lifespan of the uniforms, saving an estimated €6,700 and 1,011 tonnes of CO2 emissions over four years.
City of Turin. Italy.	Circular concepts into school catering. Sustainable school catering supply contract.			The city introduces several measures, which included requiring the use of energy efficient appliances and low environmental impact transport, as well as significantly reducing packaging and waste, and favouring reusable and refillable products where packaging is unavoidable. In addition, contractors were required to shift from using plastic to reusable dishes.	The requirement to shift from using plastic to reusable dishes alone resulted in a reduction of 157 tonnes/year of plastic waste.
City of Barcelona. Catalonia. Spain.	Municipal waste collection service. Sustainable measures include, among others, sustainable vehicles.	Open procedure.		When a vehicle has to be replaced, the replacement must be down following a sustainable order of priorities: 1. Electric; 2. Plug-in hybrid electric; 3. Hybrid electric and gas; 4. Gasoline thermal engines and 5. Diesel thermal engines.	



City of Mataró. Catalonia. Spain.	Municipal waste collection service.	Open procedure.		The award criteria allocate the maximum number of points to the lower environmental impact for each product (machinery, containers, clothing of personnel, etc.).	
	Sustainable measures include, among others, green supplies, reduction of greenhouse gases and the use of fuel-efficient tyres.			The award criteria also allocate the maximum number of points to the proposals with less greenhouse emissions and to the more fuel-efficient tyres.	

Source: Data and descriptions of GPP examples have been obtained from EU Handbook, 2016, EU Good practice and guidance, 2017 and Barcelona and Mataró municipalities procurement documents.

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